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AGRICULTURAL RESOURCES AND MAIN MEANS OF DEVELOPING AGRICULTURE IN THE ARAB REPUBLIC OF SYRIA

Akram Allabed¹

¹University of Agricultural Sciences and Veterinary Medicine of Bucharest, 59, Mărăști Blvd., Bucharest, Romania

Key words: *land modernization, agricultural development, labor force, agricultural workers, human resources performance*

Abstract

In the Arab Republic of Syria there is a need of improving the efficiency in the use of agricultural resources, by government helping services and investments and improving the production conditions and agricultural investments, through plant and animal resources, in order to be adapted to the durable development objectives within the region, for accomplishing a nourishment that meets food safety and national industry requirements, and use of labor force and export. On this basis, the present chapter analyzes the politics and conditions which affect exploitation and agricultural development resources in Syria.

INTRODUCTION

Syria is situated in the Mediterranean Sea region, therefore the climate is Mediterranean, with cold, humid winters and hot, dry summers, the two seasons being separated by other two seasons (spring and autumn). From a climatic point of view, Syria can be divided into four geographical areas (sea area, mountain area, interior area and visible area) and into five areas of agricultural stability, which differ in rainfall quantity and crops.

MATERIALS AND METHODS

The available statistic information from Syria, represented the analysis base for the period 2000-2006.

As analysis method, we used indicators concerning climatic conditions, soil, agricultural surfaces and their use, soil irrigation, labor force resources.

RESULTS AND DISCUSSION

From the analysis, the following concerning agricultural development in Syria resulted:

1. Climatic conditions:

Generally, the average of rainfall, its time and place, largely affects agricultural and production operations. This fact speaks for

itself when it comes to Syria, due to the fact that the agriculture practiced with aspersion irrigations represents approximately 70% of the agricultural surface. In the last years, Syria is generally characterized by decrease in rainfall, resulting into drought.

2. Agricultural resources. In the case of Syria, we notice an increase in the total agricultural surface and also in the land surface with rain irrigations, and for the surfaces which are automatically irrigated, an increase in the average is sensed. In Syria, this direction of land use is reflected in the surface of automatically irrigated areas and in the ones irrigated by rainfall. The government in the Arab Republic of Syria passed a project with strategic directions in agricultural development (2001-2010) and a five-year plan (2005-2010) with special importance in improving the use of agricultural surfaces, as it follows.

- Positioning of a agricultural and economical environment map, within the territory, in order to limit crop production areas, according to percentage characteristic, by adopting a geographical information system.

- Use of land in order to practice agriculture, of production structures and agricultural courses, in order to improve production and accomplish cooperation between plant and animal producers.

3. Balance of land use

Syria benefits of a surface of 18,5 million hectares of land available for practicing agriculture (consisting in lands with automatic irrigation, rain irrigated and unexploited lands) and land unavailable for agriculture, stony and sandy with public facilities, rivers, lakes, meadows, pasture land, forests. In 2006 the land available for practicing agriculture reached 32% of the total country surface (5.950

thousand hectares), the land unavailable for agriculture reached 20%, land with meadows and pasture land 45%, and forests 3%.

Between 2000 and 2006 the surface per inhabitant decreased from 0,279 ha in 2000 to 0,250 ha in 2006 (Table 1). This decrease was due to the fact that the population of the country increased faster than the land fitted out for crops.

Table 1 Development of agricultural surface per inhabitant, 2000-2006

| Information | Unit | 2000 | 2004 | 2005 | 2006 | Index 2004-2005% | Index 2005-2006% | Annual development average 2000-2006% |
|--------------------|-----------------------|-------|-------|-------|-------|------------------|------------------|---------------------------------------|
| Cropped surface | Thousands of hectares | 4547 | 4729 | 4873 | 4743 | 103 | 97 | 0,7 |
| No. of inhabitants | Thousands of people | 16320 | 18138 | 18356 | 18941 | 101 | 103 | 2,5 |
| Per inhabitant | Ha/inhabitant | 0,279 | 0,261 | 0,265 | 0,250 | 102 | 94 | -1,8 |

Improvement of the system in the process of granting responsibilities to the direct beneficiaries for the surfaces, conducts to accomplishment of the administrative task of the government, and represents a support in the important role of observing and monitoring.

From the point of view of property right, the largest part of land available for agriculture belongs to the private sector, and property right of the land unavailable for agriculture belongs both to the private as well as to the public sector. The pasture lands and forests are considered public property, the state being the one able to exploit or permit to exploit them.

4. Mechanization of work on the agricultural surfaces

The government tries to encourage the use agricultural machinery, which results from an increase in the number of tractors, grain harvesting machinery, though agricultural machinery are at present used only to harvest cereals, especially grain and barley. In table 1-13 we can notice an increase in the degree of machinery use, especially for grain and barley, due to the increase of the number of tractors and grain harvesting machinery. Their number for each one thousand ha increased between 2000/2006 with a percentage of 7,02% to 15,63%. Still if we compare 2005 to 2004, we notice a decrease in the degree of

automatization concerning tractors and lack of improvement for grain harvesting machinery, though we notice an improvement between 2005-2006.

5. Modernization of agricultural surface. The Irrigation Ministry modernizes the land in the areas with automatic irrigation and builds governmental irrigation systems, and the average of the areas which are annually reformed is of approximately 20.000 hectares. At the same time, The Ministry of Agriculture and Agrarian Reform deals with reforming of the mountain and stony areas, with cultivation of fruit trees, sown fields and cereals. The average of reformed areas reached from 20.000 – 25.000 hectares in the last few years. The projects are applied with the help of some components, such as land modernization, complete rural development, loans given to the target areas. Most of these loans are financed from the exterior. The most important project are: the project for wainscoting fruit trees in Kuneitra, the project for the green belt, the project for development of the southern area, the project for agricultural development in the Homs mountain, the project for developing the central and plain areas.

6. Water resources. The Arab countries represent the largest areas in the world with lack of water resources. The annual average

per inhabitant is of approximately 1.000 cubic meters, in comparison to 7.500 cubic meters at world level. It seems that in the future, water situation will be even more pessimistic, due to the stipulation of an average of 500 cubic meters per inhabitant in the year 2025, which is due to increasing demographics, lack of water assigned to the Arab countries from the commune rivers springing from neighbor countries, which represent about half of the existing water quantities. The water resources used for irrigation in Syria vary and represent a total quantity of 62 million cubic meters, of which about 45 million cubic meters from rainfall and 17 million cubic meters from water obtained from constant sources, among which the limited area, according the temporary Treaty with Turkey, from River Euphrat. There are also a number of 154 small dams, of which three represent 87% of the total storing capacity. The number of damns increased from 153 dams with a storage capacity of 16.785 million cubic meters in 2000, to 151 dams with a storage capacity of 18.629 million cubic meters in 2005.

7. Human resources. The population of Syria reached in 2006 about 18.941.000 inhabitants. By age categories: 39,5% between 5 and 14 years of age from the total number of inhabitants, 55,6% between 15 and 59 years of age from the total number of inhabitants, and 4,9% 60 and more years of age from the total number of inhabitants, the number of inhabitants younger than 20 years of age is of about 9.573.000, 51.2% of the total population.

From table no. 3, we can notice a development in Syrian labor force indicators, in comparison to the Arab countries, between 2000 and 2004. We observe an increase in labor force and labor force in agriculture, for the Arab countries, while the total and agricultural labor force in Syria dropped significantly. In Syria, the labor force in agriculture decreased mostly in comparison to the labor force in agriculture from the Arab countries. We can notice that economic efficiency of labor force in agriculture in Syria, is much higher than that of the Arab countries.

The labor force of inhabitants of 15 or more years of age reached in Syria, in 2005, according to the statistics of the Central Bureau of Statistics, a number of 5.026.000 workers, 745.000 women, while number of men reached 4.281.000 workers. The percentage of labor force reached at the end of 2005, 27% of the inhabitants, of which 23% men and 4% women.

In table no. 2 we notice a total decrease in the number of workers and workers in agriculture. Still, the rate of workers in agriculture suffered an obvious decrease in 2000-2006. The explanation for this decrease might be that of development in the other sectors and need of labor force for those sectors and limited power of the agricultural sector, in offering more work opportunities, as a result of enhancing modern technology and reduction of land with automatic irrigation, due to the lack of water and the diversity of climatic conditions, which had a great impact on seasonal labor force.

Table 2. Development of total and agricultural labor force 2000-2006

| Information | Unit | 2000 | 2004 | 2005 | 2006 | Modification % (04-05) | Modification % (05-06) | Annual development average % (00-06) |
|----------------------------------|----------|------|------|------|------|------------------------|------------------------|--------------------------------------|
| Total number of workers | Thousand | 4937 | 4302 | 4680 | 4860 | 8,8 | 3,8 | -0,3 |
| Number of workers in agriculture | Thousand | 1430 | 734 | 940 | 952 | 28,1 | 1,3 | -6,6 |
| Rate of agricultural workers | % | 29,0 | 17,1 | 20,1 | 19,6 | 20,1 | -2,5 | -6,3 |

Labor force in the agricultural sector (table 2) represents about 20% of the total labor force and 5% of number on inhabitants. Women

labor force represents about 27% of the agricultural labor and 15% of total labor force.

From table 3 we notice a domination of the service sector in employing labor force (27,1%) and an increase in agricultural employment rate (from 17,1 to 20,1%) which occupies a second place after services sector,

and a domination of the public sector in employing for the service sector, and also a domination of the public sector in employing for the non-service sectors (an obvious improvement between 2004 and 2005).

Table 3. Development of percentage distribution of workers (15 and over years of age) according to sectors, 2004-2005 (%)

| Information | Public | | Private | | Cooperation and commune | | Total | |
|----------------------------------|--------|------|---------|------|-------------------------|------|-------|------|
| | 2004 | 2005 | 2004 | 2005 | 2004 | 2005 | 2004 | 2005 |
| Agriculture, hunting and fishery | 1,3 | 2,9 | 22,3 | 96,2 | 47,0 | 1,0 | 17,1 | 20,1 |
| Industry | 5,9 | 15,1 | 16,8 | 83,7 | 8,3 | 1,1 | 13,4 | 13,6 |
| Construction | 3,4 | 4,0 | 26,2 | 94,7 | 22,9 | 1,3 | 19,5 | 14,1 |
| Trade, hotels and restaurants | 1,3 | 1,6 | 16,9 | 96,7 | 8,6 | 1,7 | 12,1 | 15,8 |
| Transport and means of transport | 3,2 | 10,9 | 7,3 | 87,4 | 4,9 | 1,7 | 6,1 | 7,1 |
| Properties, insurance and realty | 1,1 | 15,4 | 2,3 | 83,7 | 1,1 | 0,9 | 1,9 | 2,1 |
| Services | 83,8 | 82,4 | 8,2 | 17,1 | 6,9 | 0,5 | 29,9 | 27,1 |

It is estimated that the number of actual workers was about 4.693.000 workers in 2005, from which 86,6% men and 13,4% women. We notice from table 4 that the percentage of workers in the agricultural sector reached second place, after the services sector with about 27%.

Table 4. Division of labor force according to sector, 2005

| Sector | Number of workers (worker) | Percentage (%) |
|----------------------------------|----------------------------|----------------|
| Agricultural | 945186 | 20,1% |
| Industrial | 638528 | 13,6% |
| Construction | 659880 | 14,1% |
| Trade, hotels and restaurants | 742600 | 15,8% |
| Transport and means of transport | 333228 | 7,1% |
| Properties, insurance and realty | 100113 | 2,1% |
| Services | 1273959 | 27,1% |
| Total | 4693494 | 100,0% |

The agricultural sector contributed in 2005 at employing approximately 20% of the number of workers (table 4), and we notice a decrease

in the percentage of workers in agriculture from about 32% of the total workers in 1999 to about 20% in 2005, and we notice a continuous decrease of labor force in agriculture, in this period, this indicating the presence of continuous emigration towards the cities, and employment in other non-agricultural fields, while decrease in the number of workers in agriculture, was followed by an increase of labor in the other sectors, especially in that of services. The percentage of paid labor force in agriculture reached 19% of the total number of workers in agriculture, a fact which indicates that most of the labor force in agriculture comes from the owners of the agricultural surfaces.

The percentage of women labor was of 34% in 1999 and dropped to 21% in 2005.

The percentage of workers in agriculture within the public sector reached 2,9% from the total workers in agriculture, 83% of them men, while the percentage of workers in the private sector reached 96.2%, from which 79% men, and the percentage of workers in the other sectors reached about 1%.

It must be specified that one of the most important challenges which Syria is confronting is fighting unemployment and meeting the requirements resulting from demographic increase, seeing as the unemployment rate is between 8 and 12%. Preparing of human resources with help of training inside and outside the country. The indicators showing Syrian human resources

between 2000 ad 2006 show an annual demographic development of 2,5%, and the development of rural population is of lower average than the total population, and the demographic development within the cities, is an average higher than the general average demographic development, as well as the decrease in the average of rural inhabitants and increasing of the one for city inhabitants.

Table 5. Work productivity in the agricultural sector

| Date | Unit | 2000 | 2004 | 2005 | 2006 | Modification % 05-06 | Annual development average % 00-06 |
|---|--------------------------------|-------|-------|-------|-------|----------------------|------------------------------------|
| Percentage per inhabitant from the total local product | Syrian pounds/ individual | 55389 | 59874 | 61825 | 62971 | 1,9 | 2,2 |
| Percentage per inhabitant from the local agricultural product | Syrian pounds/ individual | 13710 | 13578 | 14017 | 15440 | 10,2 | 2,0 |
| Percentage per rural inhabitant from the local agricultural product | Syrian pounds/ individual | 27363 | 29203 | 30143 | 33203 | 10,2 | 3,3 |
| Work productivity | thousand Syrian pounds/ worker | 315 | 430 | 419 | 422 | 0,8 | 5,0 |
| Work productivity in the agricultural sector | thousand Syrian pounds/ worker | 238 | 509 | 424 | 455 | 7,3 | 11,4 |

The equal distribution of population between village and city indicates the interest for agriculture and the activities relating it. The changes in 2000-2005, as well as for 2005-2006 are considered as positive by all indicators.

We notice an improvement of the general income (2,2% annually) and the one from agriculture (3.3%), which indicates that the agricultural income increased in comparison to the general income, as seen in the annual development average (table 5). Also, we notice an increase in productivity, though agricultural labor productivity obviously increased in comparison to general labor productivity. Comparing year 2006 with year 2005 we also notice an improvement in all indicators.

CONCLUSIONS

Agricultural policies have as purpose the increase in agricultural productivity and

improvement of its quality, trying to accomplish food safety and some main storage goods, and also increasing export. The agricultural policies consisted in production and marketing politics and agricultural support, as well as settling and improving of infrastructure.

The agricultural policies present in Syria, focused on reaching a number of objectives, of which we mention the most important:

1. Accomplishing an effective contribution in the agricultural sector to the total local product, also economic stability, through increase of production and supply of larger labor opportunities.
2. Increasing main good storage environments, decreasing food lack, improvement of goods balance by development of the exports and decrease of imports.
3. Accomplishing cooperation between the agricultural sector and the other economical

sectors, at the level of resources and production integration, the agricultural sector supplying an important percentage of resources and prime materials for the industrial sector, as well as increasing use of agriculture for industrial products, such as machinery and fertilizers.

4. Raising the level of agricultural education, by the presence of teachers and professional supervisors in the field.

5. Preparing of human resources with help of training inside and outside the country.

6. The indicators showing Syrian human resources between 2000 ad 2006 show an annual demographic development of 2,5%, and the development of rural population is of lower average than the total population, and the demographic development within the cities, is an average higher than the general average demographic development, as well as the decrease in the average of rural inhabitants and increasing of the one for city inhabitants.

7. The equal distribution of population between village and city indicates the interest for agriculture and the activities relating it. The changes in 2000-2005, as well as for 2005-2006 are considered as positive by all indicators.

8. The agricultural sector contributed in 2005 at employing approximately 20% of the

number of workers and we notice a decrease in the percentage of workers in agriculture from about 32% of the total workers in 1999 to about 20% in 2005, and we notice a continuous decrease of labor force in agriculture, in this period, this indicating the presence of continuous emigration towards the cities, and employment in other non-agricultural fields, while decrease in the number of workers in agriculture, was followed by an increase of labor in the other sectors, especially in that of services. The percentage of paid labor force in agriculture reached 19% of the total number of workers in agriculture, a fact which indicates that most of the labor force in agriculture comes from the owners of the agricultural surfaces.

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TECHNOLOGY OF MANAGEMENT IN AUTHORITY OF PUBLIC ADMINISTRATION OF THE REPUBLIC OF MOLDOVA

Ana ANTOCI, Vitalie IGNAT

The State Agrarian University from Moldova, 44, Mircesti street, 2049, Chisinau, Republic of Moldova, tel. (+373 22 212808), gsm (+373 68 714685: +373 79 571894), anisoara_83@mail.ru

Key words: *Public Administration, Technology of management, Public Service, Organization*

Abstract

The states executes public service, maintains order, education and help public finance, protection of state frontiers , in the domain of public administration. All these public services are organized in the one sistem of organs, create public administration. Technology of management or technology of leadership is a science, total methods and measures for operative management. The object of technology of management are people, organizations in a society. In dependence of different kinds of organizations of the society are used instruments that determine one scop, abilities and interests: the different ways of control and management. The technology of management must be applicated and wished by all managers, public functionaries to have success in the future. The purpose of the paper is to investigate, compare, analyze and make conclusions on the forms and management technologies, procedures and management efficiency.

INTRODUCTION

The state set up public services, law and order, education, health, public finance, protecting the borders of the country, managing the public domain, etc.. All the public services, organized in one organ system, form government. The management means a state of mind, a practical way to conduct a dynamic vision, directed by well-defined purpose, for maximum efficiency in any business. Management encompasses the management functions of all staff in the enterprise, starting with the director until the team leader. Technology management and technology management is science, all methods and measures for management as a more functional. Objects are man-management technology, organization and society. Depending on the specific organization and society, using instruments that determine a particular purpose, on the basis of skills and interests, the way the control and management, based on intellect and leadership personnel activated.

MATERIAL AND METHOD

The leader of an organization of public administration must know that the leadership of an organization are required so management

technologies, as well as their efficient operation. It is an attempt to present an overview of the phenomenon of government activity, while being tackled topics, concepts and ideas more or less reflected in various publications. In preparing the present paper I have consulted various legislative acts and, above all, the Constitution of Moldova. In studying various social phenomena, it is a special part historical research method. In different historical periods have enabled various institutions empowered with control functions. Theoretical and methodological basis of the investigation in question is the design and management mechanisms use technology in government authorities of Moldova. In preparing the paper work I have consulted local researchers, as well as those abroad.[2] Subject matter management, technology is the interpretation, application of technological knowledge to be resolved some practical tasks in various fields of production. Has become obvious topical issues addressed in the contemporary technical-scientific revolution, as reflected by the following concepts generalizing:

"postindustrial", "information", "Tehnotron", "synergistic".[1] The purpose of this paper is to confirm the meaning of technology management, technology management

typology and its specificity and also their implementation in the public administration.

RESULTS AND DISCUSSIONS

Management is an art to using the work ends, the intellect, the behavior of other people. In the early twentieth century the term came into the economy, which grew more and which has become final. Management is all activities, subjects, methods, techniques, incorporating the tasks of leadership, management, administration and organization and tend to the optimal decisions in the design and microeconomic adjustment processes to lead the entire team of employees to undertake such work as more profitable for to manage change unit capable of providing a durable and effective future economic and social. The term "technology" comes from the Greek Techne - art, skill, cunning and logos - study, science, theory and is widely used by politicians, economists, philosophers, engineers, managers, teachers, etc.. Over time, the meanings of the terms have changed: the technical means all procedures used in practice a trade, science or arts, technology means the knowledge about ways and means in a given field. In Romanian, the word technology is treated as a science methods and means of processing of materials, assembly processes, methods, operations, etc.. used to obtain a given product. D. Galbraith defines technology as the application of scientific knowledge, organize the system in order to solve problems that meet everyday needs of humanity. But D. Bell stated that technology is the application of knowledge to the choice of routes for various technical tasks. Technology means a thorough study of human experience, evidenced by developing formal and informal activity and human interaction with the environment. All that is born is taught, learned. In this mode may be characterized not only production technology but the business of technology and institutions, technology leadership of certain lines of social, technology training and education etc.. Technology management and technology management is science, all methods and measures for management as a more functional. In every case the organization of

public administration requires adequate management technology. So, depending on management goals, is used when not all the objectives of government departments are based, there is a method for training purposes, there is a statistic to achieve the objectives and purposes, is carried out without training meetings, training purposes and goals always being modified. Management technologies by purpose is a leadership that is accomplished by modern requirements. Within these programs are conducted so that the business plans and other documents corresponding organizations. This uses a simple driving after a goal, an information systems management, leadership in the regulations. Leadership as simple purposes - is a training management, effective and calculated without an implementation mechanism. It opens a new way to initiate a decision of the officials. Programs - for leadership is a leadership training for the leadership, mechanisms to be implemented. The goal must be achieved in a timely manner. Regulatory management is based on assessment by the driver driving a final goal, also a limitation in certain parameters and resources. The goals to be achieved, but the time before he could not be calculated within certainty. Driving after solving for guarantees that are related to risks and shortcomings of risk, transmission risks third person, (the insurance company or insurer), limiting the potential risks and their effects on certain methods and precautions, use of all resources in a single sphere.

Technology management for results - are based on management decisions after results of previous work. To achieve these technologies, usually, is a functional training as the new behavior makes an analytical group that included specialists in psychology and sociology, economics and marketing, for this leadership forming shaped array. The functions assigned to them being included analysis of current information, completing the questionnaire, distribution problems and prepare a plan for correction of certain problems and decisions, forming an information base. This technology is used for work for most employees when the organization is limited to daily activities.

Technologies by control and order - is based on a rough planning managers every day. These technologies are effective for organizations in which authority and professionalism are high-level driver. Date technology is applied in the form of guidance in collective forms of learning with individual control and regularly.[3] Technology management based on systematic monitoring and reporting of order is used when not coordinated and effective for daughters enough item, no stock of officials to take certain decisions, I not officials cholera and sparkle. Technology based on an artificial intellect. In the information systems in practice the situation when the enterprise system is hampered documentation not working its objective and if the lack of effective leaders and specialists, is lost time for meetings and conferences, and work day go beyond the expected. Management technology firm based activation is used when officers are without initiative and their work is based on material reward. They have no imagination to implement the results of its effectiveness in the work organization granted, more time to resolve existing conflicts, the driver usually makes his cabinet meetings, and very few youth organization. This technology is achieved by an effective physical and personal interest here outweigh the use of food, clothing and housing that guarantees a minimum result. Management technology that is based on interests and needs is applied when there is a plan of activities in the organization and leadership, usually officials least know the prospects of the organization, in places where smoking is many officials, there is always exchange of personnel, are common respiratory diseases in officials, the driver often having conflicts with officials. Technology management in special situations apply when effective and professional specialists is released from office, there is a huge driving device, the driver rarely coming to office, the organization is equipped with the latest information technologies, effective relationship between officials.[5] This technology is due to regulatory technologies with an efficient allocation of management or auxiliary, or the existence of a structure of trust within the organization, when officials

and leaders have a relationship of friendship, he is able to solve professional day working days problem. In this case the circular system is effective within the organization based on relationships.

There are two types of production technologies based: 1) individual knowledge and skill; 2) the collective knowledge and skill.

Table 1. Content and private technology differences and general technology

| Nr. | Technology Management private (individual) | Technology general management (collective) |
|-----|---|---|
| 1 | The employee meets job operations from start to finish product object. | The worker has a work-part operation of the technological process. |
| 2 | Requires working knowledge of all subtleties of the production process. | Requires knowledge of only a single operation work - the worker performed. |
| 3 | All operations work they carry out a single person. | I applied individual instruction (specially designed). |
| 4 | Long process. | Process faster. |
| 5 | The product obtained is qualitative. | The product obtained is approximately the same quality. |
| 6 | The key elements consist of intuition, sensitivity and worker experience. | Basics is the calculation of scientific knowledge. |
| 7 | Production is limited by the work of the working. | Production is not dependent on a single worker. Production conditions are created for the amount. |

CONCLUSIONS

- 1.Tehnologiile management must be implemented and desired by all leaders, officials in order to have success in the future.
- 2.Implementarea new information technologies in public administration institutions is improving relations between public administration bodies and citizens. Using information technology can significantly reduce the volume of documents, administrative forms that runs on paper, replacing them with the submission of and regulations under which it is organized and operating in one country, while management is a practical and a multidimensional content.
4. Using technology management in different areas of the Republic of Moldova is the first track.

5. Technology management is the interpretation and application of technological knowledge to be resolved some practical tasks in different areas.

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THE ENERGY AND HYDROCARBONS POLICY IN ROMANIA

Mihaela BADEA

¹University “Alma Mater”, Sibiu Street Somesului, Sibiu, Romania, Phone: +40 269 250 008
E-mail: mihaela.badea@uamsibiu.ro

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Abstract

This paper presents the evaluation of potential energy issues affecting the development of the entire society. Though Romania's natural resources are not managed from the interior any more, energy policy should be able to harmonize with the requirements of economic efficiency across the EU. Society must become as quickly as possible energy independent by replacing old forms of energy with so-called green energy.

INTRODUCTION

The Romanian economy harmonization with the EU internal market implies economic reforms and the development of institution which lay the ground for the market economy by connecting the laws and the economic mechanisms to those of the EU, and also by creating an extensive process of adapting the production of the units and economic branches to the demands of increased competitiveness of the European Community market.

In recent years Romania has made special efforts to implement European legislation in labour relations. But this is not sufficient: the administrative capacities to implement European rules must be improved.

The ultimate aim of the E.U. strategy is that in 2011 all member countries, but also the candidate countries must achieve 70% of labor employment.

Both reform and especially the adaptation process involves considerable efforts materialized in staff layoffs, retraining, staff travel to jobs, investment, etc., efforts to be carefully evaluated and included in the economic and social programs. Since the harmonization process is of outstanding national interest that can't be postponed, one of the possible ways to be sought is to attract all social forces to create a favorable social environment for this purpose and to achieve a close social and economic cohesion. Moreover, the experience of both Romania

and other European countries shows that the development of economic reform projects, projects of industrial adjustment or projects of restoring the macroeconomic balance face major barriers precisely because such forces (their interests and their behavior) are not considered.

From this point of view, Romania is now in a situation comparable to that of the European small countries of the '50s when their economies raises the question of adoption of a highly competitive environment, but also in terms of internal social difficulty created by differences between groups of interest. The policy to achieve an internal social peace in order to achieve the adaptation programs and to create a flexible economy proved to be a viable solution that ensured both the harmonization of these countries with the European Community and their economic prosperity.

Romania in the process of carrying out extensive reform programs and some profound adjustments needs more than ever political actions to achieve social peace, because only in such conditions there will be a guarantee to achieve in a relatively short period of time the E.U. harmonization of objectives. We believe that the political factor in power, regardless of doctrine, is obliged by the economic and social realities of life itself to consider and establish a proper relationship with organized social groups, especially in critical periods of time,

when their interests are most affected, but also when their support is most needed.

THE NATIONAL ENERGY RESOURCE POTENTIAL

The correct assessment of the state of the Romanian economy is a prerequisite for adoption of specific policies of Romania's harmonization with the economic structures of the European Union. Romania has a strategic position in favor of economic development and external energy flows and may become the liaison of trade relations between Western and Eastern Europe, between Europe on the one hand, and Asia and the Middle East on the other hand, and between North and Southern Europe.

The national energy potential of Romania is characterized as follows:

- for hydrocarbons, due to the natural decline of the energy deposit, there is no capability to ensure production and consumption of oil and natural gas at the required levels of the national economy;
- for coal reserves there is an important foundation that can provide production for a long time provided for taking measures of efficient use of the capacity, according to the geo-mining conditions, the existing techniques and technologies;
- for uranium or the stock is recovered to a lesser extent, and mining products obtained are stored for use in the future nuclear-power facilities;
- for hydropower there are real possibilities for the development of micro hydro plants on the inland rivers of the country;
- for some non-conventional energy sources the assessment is of a lower contribution to cover the country's energy needs.

THE NATIONAL HYDROCARBONS POTENTIAL

Except for the aqueous phase, the gaseous and liquid phases of oil are composed of hydrocarbons chemically related substances with hetero hydrocarbons and impurities.

The gas phase of the free gas zone of oil deposits has the same components which do

not differ much as proportions but have a lower content of methane.

Romania has on land and on sea a surface with sedimentary rocks and conditions of hydrocarbon accumulation of approximately 130,000 Km²

The geological conditions are different and have an important influence on the activities of exploration. Romania is a mature region producing oil and gas. In total about 30,000 wells were drilled to develop commercial reserves of oil and gas. Drilling up to 4000 m depth is fairly advanced except the Carpathians area where faults are complicated.

So far 78% have been extracted, the remainder being possible to withdraw only by upgrading and optimizing assisted methods to increase the ultimate recovery factor.

Only 2.2% of the reserves discovered to the date are at depths greater than 3500 m. The estimated reserves possible to be discovered represent 10.5 to 15.55% of those discovered to the date.

The assessments of the U.S. Department of exploration (U.S. Survey), considers that Romania has oil reserves of about 200 million T, and about 400 billion cubic meters of natural gas concentrated at depths of 4000 m with complicated geological mining conditions

The outlook concerning the evolution of stocks, of oil and gas production shows that the oil industry is viable, the prospects for improving production values depend on the attention that is given to the strategic management of long term deposits, depend on the access to advanced technology in extraction and exploitation, and access to funding sources for the equipment .

THE NATIONAL COAL POTENTIAL

Geological coal reserves are estimated at 3.4 billion tones formed of lignite and coal. 75% of the production of lignite and coal comes from quarrying and 25% from underground exploitation.

Existing coal deposits in Romania are located at depths exceeding 500 m, with a complex tectonic structure, approximately 95% of

reserves are found only in the Jiu Valley Basin and 5% in the Banat Area.

The volume of exploitable reserves is reduced because:

- geo-mining operating conditions are characterized by uneven settlement of the layers with ignition propensity;
- there is a trend of depletion of reserves of high quality and those located in the middle basin.

77% of all the coal extracted and received can be recovered as net coal. The extraction activity is economically inefficient. In Romania the coal extract is of lower quality containing volatile substances, ash and sulfur in high percentage. The lower quality parameters are determined by geological-mining conditions and physical-mineralogical characteristics of the exploited deposits as follows:

- complex tectonics;
- relatively large depth of exploitation;
- frequent existence of sterile;
- low thickness of the coal layers;
- heavy hydro-geological conditions;
- high content of ash constitution.

Inferior qualities of coal extracted parameters negatively influence the development costs of extraction and preparation. Impact of coal quality on key inputs and the coal market is marked by the following factors:

- cost of producing energy to the consumer is affected by qualitative characteristics of coal;
- sub-standard quality of coal delivered to increase the specific consumption for electricity generation;
- degree of pollution increases by incomplete combustion and gas removal and ash from burning.

NUCLEA ENERGY

Romania has important reserves of uranium. Exploitation of uranium began in 1950, when it was discovered a pool of quality in the mountain range of the Apuseni Mountains. Another important deposit was discovered in the Banat Mountains, both deposits are now exhausted. Existing resources are estimated at 18,000 tons of uranium, with additional resources estimated at 8,000 tons, and the

current annual production is estimated at 100 tons of uranium concentrate.

UNCONVENTIONAL ENERGY SOURCES

After the oil crisis of 1973, searches were focused on new areas such as:

- wind;
- solar cells,
- exploitation of geothermal resources, and increased use of biogas.

Romania's climate and latitude offers great potential for solar radiation. The most favorable areas of exposure are between the Black Sea and the Danube, where solar heating systems were mounted to supply hot water for 37,000 homes and for hotels.

Wind potential was identified in the Carpathians, the Black Sea coast, the Danube Delta and the continent, where the power density is between 300 W/m² and 150 W/m².

Geothermal resources are exploited in the west of the country. Many homes around Oradea are heated by geothermal sources, and many greenhouses. For this over 250 wells have been drilled.

The use of biomass and farm waste was concentrated in biogas applications.

Technological activity to provide energy from unconventional sources was slightly funded and pursued without interest leading to reduced economic efficiency of these resources.

In future it is recommended to establish a balance of these activities, to streamline and increase their share in the energy balance.

THE NATIONAL POWER SYSTEM

The European Energy Map is a guide for the restructuring of energy sectors Application of industrial restructuring programs to develop appropriate branches that provide energy and basic material resources for national production system (energy, oil and gas, mining) involves the adoption of policies aimed at:

- reducing the energy content of GDP by halting the economic decline in national economic recovery;

- enhancement of recovery of the national potential for energy by geological recovery research;
- address the issues of exploitation of lignite reserves under the hydrostatic level;
- increase of awareness of the depth of the Jiu Valley basin tectonics;
- increasing domestic energy supply through: enhancement of recovery of geological reserves and increase fuel efficiency of extraction of the combustion mass of the deposit;
- increasing the realization of the national potential of renewable resources;
- gradual increase of profitability in the energy sector by: reconsidering the whole process of underground extraction and focus investments to maintain the profitable production capacities ;
- support of geological research, promoting measures to reduce production costs;
- improve technical performance;
- improving the institutional and legislative framework so that the energy sector is able to operate under the specific laws of the market economy;
- proposals for measures for the implementation of the energy sector development strategy

THE PREMISES OF THE EMERGING PERFORMANCE MANAGEMENT OF NATURAL RESOURCES

Premises that were the basis for achieving this work to identify key issues to be taken into account in the study of the economic management of mineral resources in market economy conditions were as follows:

The transition from centralized economy to market economy, the present situation of ROMANIA, involves structural transformation of the organization, management and conduct of all economic activities. The economic decentralization, an extensive and complex process, is, in fact, the natural course of development of the Romanian economy in order to comply with the principles, rules and operational mechanisms of the economies of the developed countries. In this respect, particular importance is given in the mineral resources management to the identification of

the extent to which to make decentralization and, therefore, to determine how decision-making powers of the various economic agents are phased;

Decentralization and reorganization of the entire economy that have great influence on the system of economic management of mineral resources;

The existence of a specific technical potential for mineral resource extraction and preparation;

Premises for organizational design data are the need for an information system of economic mineral resources management, taking into account the newly created relationship between economic and market, holding the key drivers of balance between production and consumption of raw materials and energy. Such an approach involves various forms of action, especially because of exhaustion and lower quality deposit the result is the closing of certain units or their conservation, which requires coordinated actions both for sale or labour conversion to other occupations or trades.

Based on these assumptions the coordinates were established for the major economic outlook of the management system of mineral resources, namely:

The linkages must exist between information, decisions and specific actions of the management system. Technical management of mineral resources is considered as a dynamic and complex system management. This system, in terms of components, can be considered as being formed, on the one hand, of several types of resources, each with its specifics, and on the other hand, of several subsystems (constitutional, informational, decision) which have multiple links and that require different connections. Also S.M.R.N. can be analyzed from both points of view and taking into account in this respect, for all types of resources, the following:

- abundance of information, information flows, procedures and decisions based on the same assessment criteria and algorithms based on similar costs;
- possibility of taking comune și crearea codului legislativ-normativ și organizatoric adecvat;

- formation of specific modalities of joint action and creation of the legislative and regulatory code and organizational measures;

The rational need for raw materials and energy is to ensure it in a certain proportion of domestic production. In these circumstances the question is of maintaining in service only those economic units which by exploiting deposits obtain at least a minimum profit. Also it is necessary to maintain the exploitation of deposits of resources considered strategic resources for the economy.

Utmost use of existing production capacities and their modernization is a must. In fact, in the mining industry there is high production capacity not used to its full potential (lack of materials or of essential spare parts to conduct business).

Need to ensure a balanced ratio between annual production achieved by exploiting deposits and that which could be achieved by attracting the productive flow of new paddocks. This raises the question of designing a classic management system that combines the principles of preservation needs closely linked to the economic and technical limits and their inclusion into the economic circuit.

The existence of rent and how it is reflected in the prices of mineral resources represents another issue.

Constituent of the mineral resource prices, the rent can be appropriated as owners of the land (absolute rent or fee or royalty tax is appropriated currently in Romania as state, as owner of the subsoil wealth) and operating at a given deposit (differential rent and the rent most of depletion are acquired by the concessionaire, where land and leased by the state when it operates a pool of his property).

The price of mineral resources, implicit its construction elements represent the main instrument for the operation of an efficient management system of such resources. Price-marginal cost ratio reflects, in essence, the efficiency of productive activities resulting in the size of the profits made and has a role in the adoption and analysis of the management system according to general economic system requirements.

CONCLUSIONS

1. All major international policy objectives of Romania's European harmonization, attracting foreign investment are largely dependent on the quality of the business environment, the economic interests of other countries and the economic power of Romania. Strategy materializes at the junction of the interdependence of business and the environment in which it operates.

2. Extraction of primary energy sources faces a lack of profitability, leading to slow restructuring and technological modernization of autonomous public companies, also subsidizing productive activity leading to the degradation of the branch.

3. Profitability can be achieved by increasing the processing and diversification of production, while improving quality and competitiveness.

4. For the purpose of energy sector development strategy we propose several general measures:

- critical analysis of the provisions and the results achieved in implementing the restructuring program to improve in the future;
- a study of the internal and the external market;

- studying the conditions of organization and operation of production, quality, content and duration of action to be taken to protect the extractive activity;

- study to maintain and develop jobs;

- follow up of mining concessions of perimeters with potential, intensified effort to stimulate the activity of the extractive industry;

- developing a national program for the effective and rational basis of raw materials and materials, leading to reduced material costs and currency expenditure;

- developing a national program to assimilate production of equipment leading to increased productivity.

5. Romania's current policy focuses on increasing energy efficiency and fuel substitution.

If in 2011 a GDP growth rate exceeding 0.5% should occur the reduction in energy demand

will be of 6-8% and the reduction in consumption of energy would be of 0.8-1.1%; actually the cheapest energy would be the saved energy.

To capitalize on the largest possible part of the potential energy savings it is necessary to ensure stimulation of both producers and consumers in promoting efficiency measures energy consumption.

Revenues from energy suppliers to promote energy saving measures in the facilities of the consumer are the starting point in the process of restructuring the energy.

Promoting energy efficiency measures in terms of economic value for the economic agents is imperative in the competitive struggle in a market economy.

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TECHNIQUES AND METHODS USED FOR ASSESSING AN ENTERPRISE

Aurelia BALAN¹, Ioana NICULAE¹, Alina MARCUTA¹, Liviu MARCUTA¹, Viorel NEAGOE²

¹University of Agricultural Sciences and Veterinary Medicine, Bucharest , 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail : aurelia_florescu2004@yahoo.com, iniculae2007@yahoo.com, alinamarcuta@yahoo.com, liviumarcuta@yahoo.com

²University of Valahia Targoviste , 2 Carol I, 130024, Dambovita County , Romania, Phone: +40 245.206.101, E-mail : neagoeviorel@yahoo.com

Key words: *enterprise, assessment, financial situations, evaluation ,method*

Abstract

In a world where everything is subject to the laws of the market buys and sells at a rapid pace, business assessment is a common measure in the economic and contemporane life, accompanied by increased privatization of economic liberalism which multiplies the number of enterprises subject to transactions, on the other first, expand trade on the exchange is to increase the need to assess a company for sale or purchase of part of it, no matter how small would be. The international dimension of the assessment is highlighted by the numerous transactions between sellers and buyers of various nationalities. Taking into account the influence of Anglo-Saxon financial standards, assessment practices were often inspired by the methods of assessment of North American or British, at the same time, these methods require the use of homogeneous data, especially in the accounting basis of the assessment; times between different accounting systems based on international financial reporting standards, American standards, British Standards or national standards of other countries there are differences and even conflicts to be taken into account in applying different assessment methods.

INTRODUCTION

In short, the value theory may be summarized by the following postulates[1]:

(1) *Value* is not an inherent value of an asset or good, it is created in the mind of people who represent the market of that asset or good.

(2) Value is created by the interaction of four interdependent economic factors:

- *Usefulness*, namely the capability of a good to satisfy a certain need or desire;
- *Rareness*, which represents the current or future offer for an economic good, related to the demand for that good;
- *Desire*, which represents the intensity of satisfaction generated by an economic good to a person who does not have it, but who needs it;
- *Buying power*, which represents the capability of a person or group of persons – market participants, to buy the offered goods against the payment in cash or equivalent.

(3) The manifestation of value is conditioned by the transferability of the asset or good, expressed by its capability to be exchanged for money or equivalent. Undoubtedly, transferability does not create value, but represents a key feature of the manifestation of value. When a good or an asset is not transferable, it cannot have a market value, even if it can have a utilization value.

(4) The continuous interaction between the four economic factors described in article (2) is reflected in the action of the most known "law" of the market economy: law of offer and demand.

MATERIAL AND METHOD

Material and method used to accomplish the goal in that work are research (foray works of specialty); evaluation, analysis and interpretation of date from works of specialty and statistic date.

RESULTS AND DISCUSSIONS

The principles, which are listed and analyzed in short below, have been synthesized by combining the economic theory, the standards for the assessment of an enterprise, the market realities, and also the logic of common sense[2].

Principle 1. The value of an enterprise is equal to the current value of all the forecasted future flows which result from the property rights on the company's capital.

In short, we can note that the value of an enterprise is future oriented. On a market, the investors analyze the enterprises based on their obvious capabilities to generate, after their purchasing, incomes or free financial flows both from operational and non-operational activities. Generally, the higher is the uncertainty regarding the future results of an enterprise, the greater is the risk perceived and hence, the value will be smaller.

Principle 2. When the value is defined as the "current value of all forecasted future incomes resulted from the property rights", it has two different components: commercial (transferable) value and non-commercial value (value for the owner).

This principle, which is quite easy to express, is sometimes hard to measure, because, as shown, an important condition for the manifestation of value is established by the transferability of a property, therefore, the assessor has to distinguish and quantify the non-transferable value which belongs to the current owner due to his/her personal attributes, and to include in the market value only the commercial (transferable) value.

Principle 3. The value is estimated in a certain moment. It is based on the information known and forecasts made only in that moment.

The enterprise, as object of economic research and practice (of the assessment, also) is best described by the philosophical concept "Everything flows".

The enterprises evolve continuously as a result of selling or buying assets, production lines, change of management, change of financial arrangements, changes in the field and related to the competition. All these changes influence

the evolution of the enterprise and lead to the change of its value. Therefore, value corresponds to a certain moment in time.

Principle 4. The market establishes the capitalization rate that the investor contemplates. The capital cost or the capitalization rate plays an important part in assessing the market value of an enterprise. Also, the assessor must understand that, in a certain moment, the market forces are those which establish the capitalization rates contemplated by the investors. These forces are established mainly by:

a) The general economic conditions, especially by the interest rate for short and long term loans;

b) The balance between offer and demand for the investment market in general, and enterprises in particular;

c) The type of buyers existent on the market, their motives and the investment philosophy of each. Obviously, each category has specific expectations regarding the capitalization rate and their attitude will influence the general performances of the capital market.

Principle 5. The enterprise value depends directly on its possibility to generate future positive flows for the owners, except the case in which the winding up leads to a greater value.

Within the concept of business continuity, the value is assessed by applying a proper discount rate as regards the future financial flows obtained after the payment of the corporate tax.

By accepting that the market imposes the capitalization rate and that, in most of the cases, it is included in a relatively narrow range, it is obvious that the value of an enterprise is directly proportional with its capability to generate future positive flows for the remuneration of the capital of investors. Logically, we understand that the value assessed according to the principle of continuity cannot be lower than the liquidation value.

Principle 6. The higher is the value of tangible assets (assessed as utilization or liquidation value), the greater is the value of an enterprise. This principle is based on the following elements:

- The utilization value implies the business continuity of the enterprise assessed. For example, the tangible assets, as buildings or disposable equipment, have a higher “utilization value” than their “liquidation value”. Theoretically, when the adjusted net asset is assessed, the higher is the value of the tangible assets, the larger is the amount necessary to be invested in order to enter in the field where the company operates. The results are a higher cost for the entry in the field, a lower competitive probability and a lower capitalization rate than the one requested by the buyer. The enforcement of this reasoning must reflect the conditions of a certain situation.

- Though it involves the business continuity, all the forecasts of a reasonable investor take into consideration the possibility of bankruptcy. On the date the company is bought, the net assets of the company have a liquidation value. Theoretically, the higher is the liquidation value on the date of the assessment, the lower is the risk of the buyer and subsequently, the lower is the capitalization rate contemplated by the buyer.

Principle 7. In most cases, the controlling shareholding has a higher unit value than the minority shareholding when they are assessed separately.

It is important to distinguish between assessing the total value of an enterprise and assessing the individual value of the holdings of the different shareholders of an enterprise.

The control of a shareholder or of a group of shareholders acting coherently in taking decisions based on an agreement ensures the election of the members of the board of administration and the control of the entire business operations and of its strategy.

The first step in an assessment is to state clearly the scope and objective of the report to be prepared by the assessor (assessment team). This step will state clearly, both for the assessor and, equally important, for the client, the bases and limits of the assessment and will clear any uncertainty related to the respective case.

a) *Description of the assessed enterprise*

b) *Description of the assessed holdings*

c) *Purpose of the assessment, client and beneficiary of the report*

d) *Definition of the estimated value*

e) *Date of the assessment and of the assessment report*

f) *Hypotheses and limitative conditions*

These hypothesis and limitative conditions define the scope of the assessor’s responsibilities.

The many assessment methods known today can be grouped according to certain criteria in order to identify the way in which the assessment is approached and based on it, the supplier of assessment services[3].

a) According to the object, the assessments can be:

- assessments of independent movable and immovable assets;
- assessments of groups of cash-generating goods and units;
- assessments of economic assets (departments, factories, stores, parts of an enterprises, etc.);
- assessments of intangible assets and elements;
- assessments of enterprises in their entirety;

b) According to the method, assessments can be grouped in:

- *property assessments*; they address only the quantitative, property-related side of goods and enterprises;

- *assessment based on performances*; they address only the qualitative side – the financial results of the asset or enterprise, respectively the yield, profitability, reliability, as various type of expressing the beneficial capability of the asset or enterprise: net profit, dividend, cash flows, etc.;

- *combined assessments*; they address both the quantitative and qualitative sides, in the logic of works being included, as one type or another, both the patrimony and the results of the asset or enterprise;

- *other methods of assessment* (based on the volume of activity – turnover, for example, on comparisons, etc.).

c) According to the objective, assessments can be grouped in:

- *accounting assessments* are those provided for in the accounting standards and rules, used

in view of preparing the financial statements of an enterprise;

- *administrative assessments* are those provided for by various regulatory acts; because no regulatory act can establish methods for measuring, in the accounts of each enterprise, the impact of price changing, exchange rate of the national currency and accounting policies, the administrative assessment may, only accidentally and when the regulatory act was issued, address the market value of some goods, but never of an enterprise;

- *economic and financial assessments* are the only type of assessments based on expertise and diagnostics and which are aimed finally to establish the market value, taking into account the effective conditions related to the use of goods, organization and operation of the enterprises.

d) According to the beneficiary; the assessment methods can be addressed differently according to the beneficiary: assessments for insurances, credits, taxes, etc.

e) According to the obtained values, assessments can be grouped in:

- Assessments based on the market value which:

- involves an operational market on which transactions take place with no obstructions from outside the market;

- have to identify and include the definition of the market value which is used in the assessment;

- have to establish the best or the most probable use which represents a significant determinant of the property value;

- are prepared based on information specific to the respective market and methods and procedures which try to reflect the deductive processes of the market participants;

- are prepared by applying the methods of addressing the value by cost, comparison of sales or income capitalization; the information used in each of this approaches must be obtained directly from the market. The cost approach, according to its application, may produce or not an indication of the value market.

- Assessment based on values which are different from the market value. These

assessments use methods which take into consideration the economic unit or the functions of an asset, other than its capability to be bought or sold on the market. These assessments must:

- include the definition of the value applied in the assessment (utilization value, going value, insurance value, recovery value, liquidation value, special value, etc.);

- use the proper procedures and analyze enough information to prepare a reasonable assessment of the value.

- in case of assessments which are not based on the market, in the assessment report it has to be mentioned that the value obtained will not be interpreted as a market value.

f) From another point of view, assessment methods can be grouped in:

- so called *traditional methods*; are those which are applied, usually, to the unlisted companies;

- *stock exchange methods*; are those which are usually applied to the enterprises the shares of which are traded on a regulated market.

As we can see, the conclusion of the above mentioned classification is that irrespective of the method used, any asset or enterprise assessment takes into account the quantitative side – patrimony, the qualitative side – financial results, or both of them – the patrimony and the results.

The universal tool, according to the international and national accounting standards, in which information related to the patrimony and results are included, is the balance sheet, basic component of the financial statements that a company must prepare at least annually.

Therefore, the balance sheet is the starting point in any asset or enterprise assessment, but only a starting point.

To neglect the balance sheet as starting point of any asset or enterprise assessment is an improper approach; the expert accountants know the direct methods and the conventional techniques to distribute all the articles from the balance sheet to the last workshop or subdivision of the enterprise.

On the other hand, to assess an asset or an enterprise based on the balance sheet represents an even more improper approach,

due to various reasons. The most important one is that because the balance sheet is prepared according to certain rules and principles related to the assessment, the patrimony is not expressed in market values and the results are not those which would have been obtained in normal market conditions.

The assessment of an asset or enterprise is made based on an economic statement of the asset or enterprise, a theoretical statement used for calculation, an abstract statement which is prepared by experts only for assessment reasons. This is a statement which also includes the patrimony, but a patrimony which is expressed in economic and not accounting values, as well as a financial result, the net profit, but not a profit established taking into account the normal conditions of the market in which the enterprise or the asset is included.

Although is based on the balance sheet, at some point, the expert assessor deviates from it and prepares the economic statement; based on the assessment diagnostics, he/she builds abstract financial assemblies, development, profitability scenarios similar to an architect who draws buildings on a piece of paper. These financial activities are included in what, in the world of financial experts, begins to be known as financial engineering. This is one of the reasons why some of the specialists consider that the assessment is more an art than a science.

The movement from the balance sheet to the economic statement is made when the two reports – essential to each and any assessment - are prepared, respectively the establishment of the adjusted net asset (ANI) of the asset or enterprise and the establishment of beneficial capabilities (BC) of the asset or enterprise.

CONCLUSIONS

The assessment of an enterprise is necessary in various moments of its existence: the decision to buy or sell shares; mergers – acquisitions; taking over of some holdings; association with parts of the enterprises, etc.

The methods of assessing an enterprise have evolved according to the developments in the field of financial engineering.

Having in mind the credit underwriting, the traditional rules prepared by the financiers have stressed out the assets of an enterprise. The approach continues to be used in the industrial field where an enterprise has important tangible assets.

Today, the assessment is increasingly based on the financial analysis of the accounts, being characterized by flow analysis, which does not eliminate the approach based on patrimony, but improves it by including the intangible assets and the human resources.

An analysis of the diversity of assessment methods shows that none of them is perfect. The real issue is to find the model which is closest to the real value of the enterprise or to combine different methods in order to have as many scenarios as possible and to establish a set of values.

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THE PROBLEMS OF LAND MARKET FUNCTIONING IN THE REPUBLIC OF MOLDOVA: PERSPECTIVES AND TENDENCIES

Grigore BALTAG

State Agrarian University of Moldova, 44, Mircesti street, 2049, Chisinau, Republic of Moldova,
tel. (+373 22 212808), gsm (+ 373 79 552451) g.baltag@uasm.md

Key words: *land, land market, perspectives, farms*

Abstract

Actually the land market of the Republic of Moldova represents a characteristic development of whole national economy. Practically the evolution of land market is not different at the privatization period in the agrarian sector. It was manifested through limited land fund, small attractive land market for foreign investors, low prices of agriculture lands in comparison with the lots of other destination, the reduced area of agriculture enterprises, low competitiveness of agriculture enterprises, a lot of erosion soils in the structure of land fund. Agriculture sector represents one of the main sources of income for a big part of population. Over 60% of population is concentrated in rural sector. The goal of the study is to analyze the evolution of agriculture land market, the land relations in agrarian sector from Moldova and to identify the perspectives and tendencies of these.

INTRODUCTION

The land market of the Republic of Moldova, in the absence of some internal and external catalysers able to influence its development, at present it represents a contradictory development. The actual readiness of the land market does not differ by anything by the period of privatization process in agriculture, being remarked by the following problems: the agricultural land of the country is limited, the dimensions of land properties are reduced; the land market is less attractive (lands for agriculture); reduced competition of agricultural exploitations.

MATERIAL AND METHOD

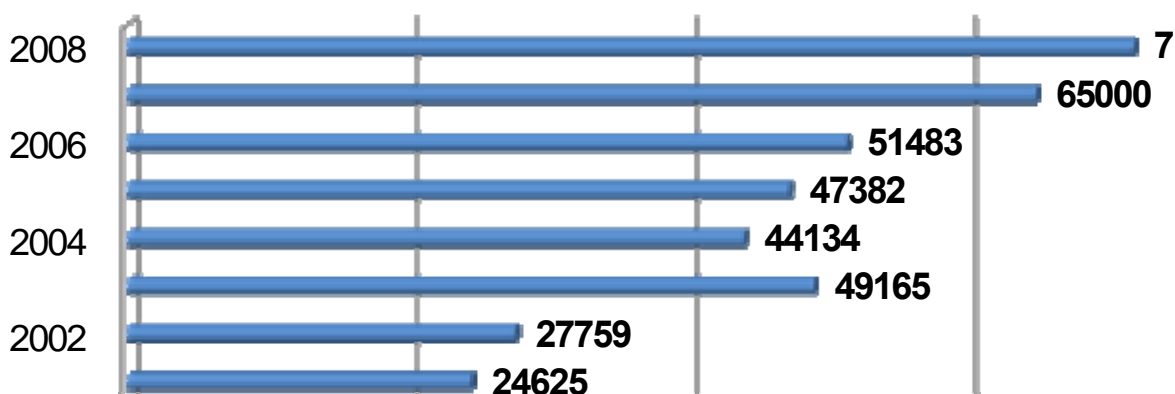
In order to study the functioning problems of the agricultural land market there were the following indicators analyzed: the number of transactions of sale-buying of agricultural lands, the surface of commercialized lands for agriculture, the average price of buying and selling of agricultural lands, the total area of agricultural lands and others. The period for this study analysis is the years 2000-2008. The sources of the collected data constitute the Ministry of Agriculture and Food Industry of the Republic of Moldova, National Bureau of Statistics of the Republic of Moldova, the

publications of the Institute for Development and Social Initiatives (IDSI) "Viitorul", Agency of Land Relations and Cadastre of the Republic of Moldova.

RESULTS AND DISCUSSIONS

The development of economic activity from the country for the period of the years 2002-2007 boosted by the increasing of foreign investments in the real sector of the national economy has determined also a positive trend of the agricultural sector. Thus an increasing is recorded of the number of transactions of buying and selling of agricultural lands. During 2000-2008 years, there were 391301 transactions of buying and selling of agricultural lands recorded (Figure 1). In the years 2007 and 2008 an increase is remarked of the number of transactions of buying and selling of the lands, that is explicated by the climacterically conditions where the agricultural producers have activated. Namely this situation caused the renouncing from the part of some farmers in a large measure, at the entrepreneurial agricultural activities. Despite the fact of transactions increasing with agricultural lands, the area of commercialized agricultural lands is still small, in comparison with the surface of the leased lands.

Figure 1. Number of the buying and selling transactions of agricultural lands

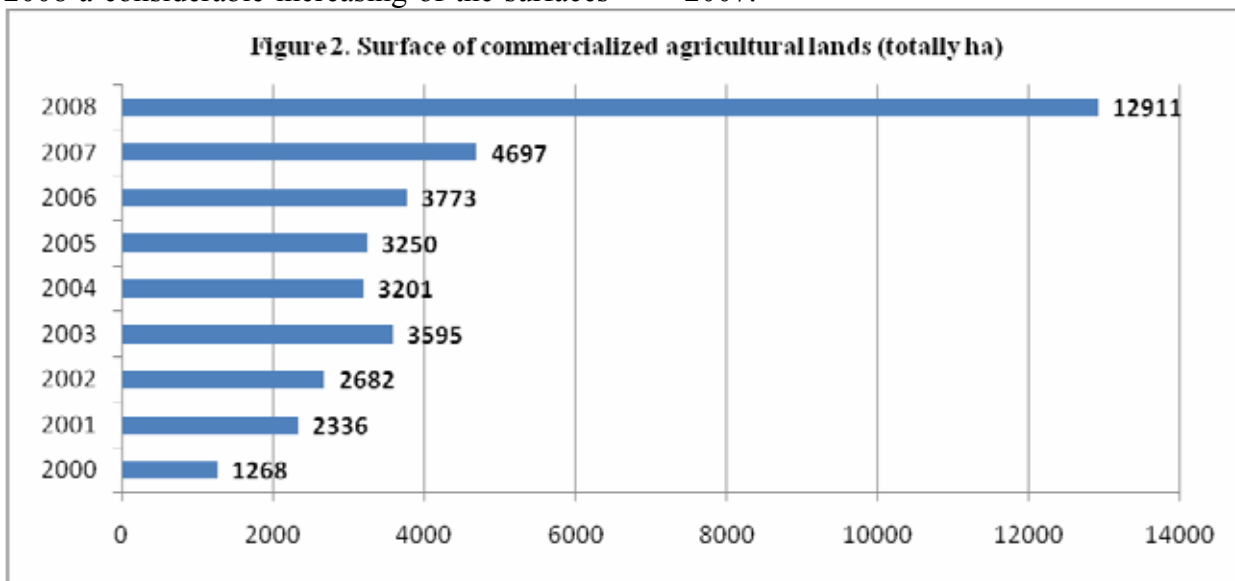


Source: Institute for Development and Social Initiatives (IDSI) “Viitorul”, Fund Relations and Cadastre Agency of the Republic of Moldova

During the years 2000-2008 the surface of commercialized lands constituted 37713 ha (Figure 2). The average surface of the agricultural commercialized land in a fund transaction have recorded 0,08 ha. In the year 2008 a considerable increasing of the surfaces

of commercialized agricultural lands is recorded of approximately 2,7 times. It is due to the decrease of the price at the agricultural lands in comparison with 2007, as a consequence of the drought from the year 2007.

Figure 2. Surface of commercialized agricultural lands (totally ha)



Source: Institute for Development and Social Initiatives (IDSI) “Viitorul”, Fund Relations and Cadastre Agency of the Republic of Moldova

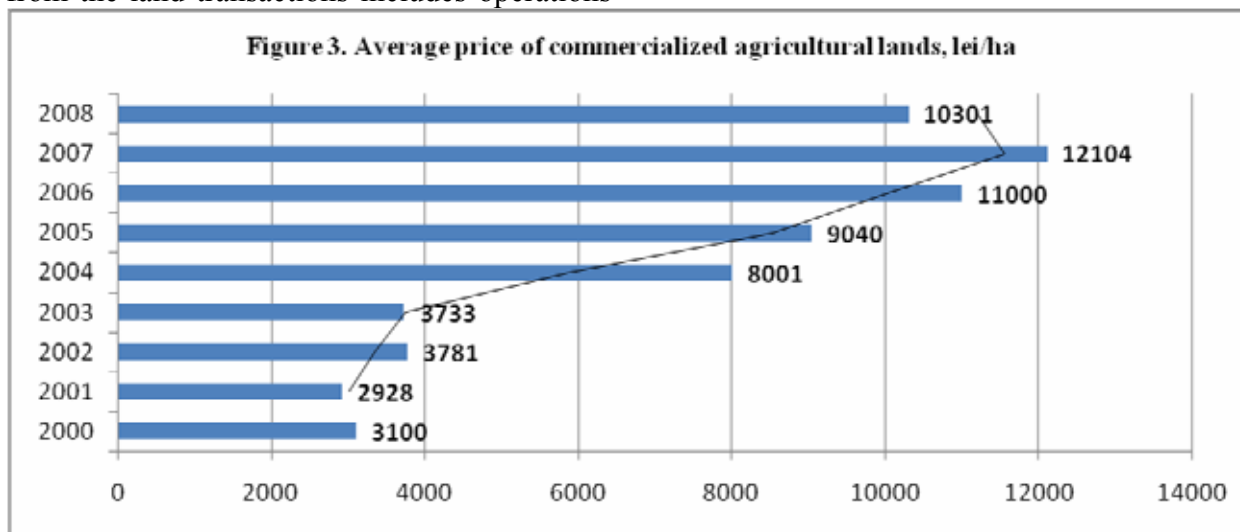
According to the data of the Fund Relations and Cadastre Agency of the Republic of Moldova, the most transactions of buying and selling of agricultural lands, in the year 2008, were recorded in the districts Anenii Noi (4611), Cahul (5204), Criuleni (4173), Hancesti (4077) and Orhei (3819).

The total surface of commercialized lands have constituted 12911 ha, the average price of one ha of the commercialized agricultural land

is of 10301 MDL lei. If we analyze according to the regions or suburbs of urban centres, then, the situation in fact, is that similar with general tendencies of land commercialization for individual constructions. Thus, in Chisinau the price for 1 ha of agricultural land reaches the sum of 300 thousand MDL lei, Balti – 75 thousand MDL lei, Ialoveni – 30 thousand MDL lei, Orhei – 15 MDL thousand lei. According to the legislation in force, the

owners of private agricultural lands have the right to seal the lands at the price. Thus, the parties of the sale-purchase contract usually establish prices less than the land value, in order to support minimal expenses at the perfection of the contract and a reduction of the incomes as taxpayer. Also, a great part from the land transactions includes operations

with the lands “without price”, that would suppose that the price for agricultural lands can be unique cases and even more ones. In case of buying and selling of agricultural lands in the private field of the administrative and territorial unity, the price of the land can't be lower than the normative price of the land.



Source: Institute for Development and Social Initiatives (IDSI) “Viitorul”, Fund Relations and Cadastre Agency of the Republic of Moldova

The most frequent form met between the forms of the property right transmitting (buying and selling, lease, exchange, donation, heritage) is the lease. In the year 2008, the area of leased lands for agriculture in the Republic of Moldova was of 808,1 thousand ha, that represents 25% of the land fund of the country (3384,6 thousand ha) or 41,07% of the total surface of lands for agriculture. In the year 2009, the surface of leased lands increased till 825964 thousand ha, from 591,6 thousands are leased by limited liability companies, 66,0 thousand ha by farmers, 122,9 thousand ha are leased by agricultural cooperatives of production and 45,4 thousand ha are leased by joint stock companies (Table 1). The greatest problem is the term of the land lease. The lease term settles tenant objectives for this period, investments, rotation and other important switches in the activity of production. The surface of leased lands for a term more than 3 years is small. In the year 2009 only 37,4 thousand ha were leased for a term more than 3 years from the surface of the leased lands - 825,9 thousand ha.

Table 1 Structure of leased lands, thousand ha

| | 2007 | 2008 | 2009 |
|--------------------------------------|-------|-------|-------|
| Total surface of leased lands | 786,0 | 808,1 | 825,9 |
| Limited liabilities companies | 581,5 | 585,3 | 591,6 |
| Farmers | 61,0 | 68,4 | 66,0 |
| Agricultural cooperative of products | 86,2 | 107,2 | 122,9 |
| Joint Stock companies | 39,4 | 47,2 | 45,4 |

Source: Institute for Development and Social Initiatives (IDSI) “Viitorul”

From these ones 28,00 thousand ha were leased by limited liability companies, 305 were leased ha by farmers (farmer), 1785 ha were leased by agricultural cooperative of production and 4053 ha were leased by joint stocks companies. Agricultural lands are leased for a term less than 3 years in the agriculture. Thus, in the year 2009, 788,6 thousand ha were leased for a term less than 3 years from the total surface of leased lands. From these ones 619,6 thousand ha were leased by limited liability companies, 62,9 thousand ha were leased by farmers, 65,3 thousand ha were leased by agricultural

cooperatives and 41,0 thousand ha were leased by joint stock companies. The payment for leasing is determined in dependence on the following indicators: the surface of the leased land, creditworthiness ground, relief, the possibility to make mechanized works, the value of perennial plantations, but it will not constitute more than 2 % from the value of the normative price of the leased land¹. The maximal term of the lease is of 30 years. The given analysis proves that the majority of leasing contracts are concluded for a period of 3 years. This is explicated by the expenses more reduced at the conclusion of the contract.

CONCLUSIONS

At the present moment the land reports from the Republic of Moldova are regulated by more normative acts: programmes, strategies, action plans, laws, government decisions, and documents of local public authorities. Despite this fact, there exist more problems which prevent the efficient development of the land market:

1. Juridical doubtful statute of some agricultural lands;
2. Limited form of access of the foreign persons on the land market of the country;
3. Passed and contradictory character of the normative regulations from the field of land relations;
4. Absence of functional capacities from the part of central authorities to adjust this legal programme quite and efficiently.

At the present moment two normative documents are supposed to the public discussions, which will contribute to solve the functioning problems of the land market from the Republic of Moldova: the project of the new Land Code and the Law project regarding the life annuity. Agricultural life annuity is applied in more countries, as a consolidation instrument of agricultural land in optimal proportions.

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¹ Art. 17 par. (2) of the Law No. 198-XV of May 15, 2003 regarding the lease in the agriculture

TECHNO-ECONOMIC ANALYSIS OF ACTIVITY IN FARMS

Rozi Liliana BEREVOIANU

Institute of Research in Agrarian Economics and Rural Development
61, Marasti, 011464, Bucharest, Romania, 0040213184357, rozi.berevoianu@gmail.com

Key words : *holdings, technical-economic activities*

Abstract

Business analysis stages is the materialization of the time pattern of analysis process. Technical economic analysis involves achieving the following objectives: phenomenon or process, finding levels investigated; studying the structure components; quantify the influence factors to assess the consequences of their action and to study the causes which have established their mobile; identify reserves and determining measures to be taken to increase the level of future activity. The main steps you through the analysis of economic activity are: establishment plan review, gathering material information required, verification of data collected, the ordering data and perform analysis calculations, interpreting results and drawing conclusions.

INTRODUCTION

In the analysis of economic activity, it will produce the opposite phenomenon. The analysis is based on the results concluded the process and factors considered by the elements, and from effects to causes. Documentation of technical and economic analysis is developed with the basic analysis plan, taking into account the purpose, the issues set out in the plan, and taking into account any changes you can make concrete data obtained from the collection of information and its processing.

MATERIAL AND METHOD

The objectives require conducting operations in a specific order, systematically. Business analysis stages is the materialization of the time pattern of analysis process.

The main steps you through the analysis of economic activity are:

- ✓ establishment plan review;
- ✓ collection of material information necessary;
- ✓ verification of data collected;
- ✓ the ordering data and perform analysis calculations;
- ✓ interpreting results and drawing conclusions.

Any analysis is unique in its way, she is determined not only by the survey and its purpose, but also the specificity of the situation are developed. In the work of analysis is evident, on the one hand, scientific inventiveness of the person making the ability to apply specific procedures when known, his logical thinking power, and on the other hand, methodical routine work, which is repeated each time.

RESULTS AND DISCUSSIONS

Establishment plan review

Any activity analysis begins by drawing its plan. Preparation of the plan is required to cover all the issues that need to consider and review the deadlines can be set so that the proceedings be conducted in time. Specify clearly the purpose of collecting the material necessary ensure fairness and prevent unnecessary references to collateral issues, minor. For each issue examined is determined objectives. Also in the plan are details on a methodological nature of indicators used, the methods to be used in data processing, technical work, presentation of results, etc., to ensure uniformity of analysis and the objective set. When deemed necessary to indicate the sources of information (global or for each issue separately).

If extensive analysis, the plan must be specified: the start and end of analysis, place

and methods to be used, possibly even people who will carry out operations.

In drawing up the plan of analysis, especially in making them, must be taken account of the unit studied, the natural and economic conditions in which it operates, the characteristics of the production process. The plan itself, when the analysis is carried out by persons outside the unit should be required to study general data on economic unit and its activities.

Collection of material information necessary

Depending on the specific objectives set out, proceed to gather the information necessary documentation. Information that must correspond to collect for analysis, to provide all the necessary characterization of the phenomenon studied.

Information needed for the analysis of farm business, are differentiated by type of analysis, (prior, current, annual or trend), the level of the hierarchy performed and how the problem studied (business side). Sources of information analysis business of the farm consist of two broad categories: external and internal sources. *External sources* are: development programs or branch of that business, market situation, domestic sources of other economic units that have relations with the units surveyed, etc. and technical evidence-operative.

Accounts occupy a central place in the information sources of economic entities with their own management. Accounting, as a subject of heritage policy provides analysis by evidence that a bear, summary indicators of economic events, usually expressed in value.

Statistical evidence available to the analysis, information on production process during its deployment, highlighting individual cases produce facts that are mass phenomena and characteristics of the main indicators of the overall picture with different degrees of generalization. The standards of measurement used: natural, natural-conventional and value, statistical records include a wide field of technical and economic processes in agriculture.

Technical and operational records provide the necessary information on operational and systematic pattern of different activities, the

This category of sources mainly generates the necessary information to guide farm work, its integration in the complex mechanism of macroeconomics, to achieve its objectives. *Internal sources* are the amount of sources that reflect unit activity analysis. In turn, internal sources are grouped into two categories: sources that provide information necessary to plan, reflecting the level at which it is or was to be carried out, sources that provide actual information, reflecting the fact the business unit analysis.

The first category consists of all internal sources documents the establishment plan reviewed: annual production plan, financial plan, operational plans (by quarter, crop year, decade or even daily), plans on issues or compartments, plane repair, supply plan, action plan for safety, veterinary action plan, etc. The use of the documents listed is based on the type and extent of analysis, the nature of the problem studied. Production plan, together with the financial plan, is a basic source of economic analysis and constituted the main criterion for assessing the business unit and so often the starting point of analysis.

Economic evidence, as reflected unitary system of processes, resources, sources and results of the unit, part of the information system, consists of: records, statistical records elements conducive to studying the causes that have generated the changes observed and domestic opportunities to mobilize available resources. Data provided by technical and operational records are shown in natural units, conventional or value, depending on the nature of the phenomenon characterized.

Performing a thorough analysis of business units in agriculture requires concomitant use as sources of the three forms of economic record, which although operating each after their own ways, complement each other, forming an integrated package.

Economic evidence provides information through its documents: primary documents, filing documents and current accounts situation. Between them, the financial and accounting statements is one of the most important sources of business analysis, as regardless of their nature or the period covered (annual, quarterly, monthly), they present

situations that mirror the synthetic data unit activity as a whole or of its sides, degree of attainment of planned targets, etc.

Financial statements of the operator, provides information on: the turnover, costs, revenues, inventories, customers, suppliers, cash flow, etc. Conceptual framework of the International Accounting Standards requires financial statements to achieve its objective through the following documents: balance sheet, profit and loss account, statement of changes equity, cash flow statement, accounting policies and explanatory notes.

Verification of data collected

Whatever the sources, methods of recording, processing and storage, it is necessary to verify the data collected made to ensure that they reflect reality. This operation, in most cases be carried out parallel with the collection of material. Checking the data collected in essentially two sides, one substantive and one accuracy.

Checking the background is examining the truthfulness of information, the extent to which it reflects the level and mode of production of the phenomenon. It aims to examine the logical connections that must exist between the levels of certain indicators, between their values and characteristics of the phenomenon in time and space picture, the whole and its component parts.

Checking the accuracy of information, calculation accuracy is to examine what was the basis for determining the data collected.

When the analysis is a control character, is made and checking formal requirements for preparation and submission of documents which constitute sources of information. Formal verification to ensure those who do the analysis, that the documents meet the requirements of legislation and regulations, the time for preparation and submission, bears the signature of the law, if the corrections made are certified by the same persons, etc.

Presentation of data collected

The information collected is present mainly in the form of numeric indicators derived from sources such as used or determined in the process of collecting and processing data.

Economic indicators is a numerical expression of the quantitative side of economic phenomena, in close contact with the substance of their specific conditions of time and place. They can be characterized by absolute values, relative average indices and different factors, depending on the phenomenon referred to or which side one stands.

Ordering data

Ordering information is absolutely necessary for an operation to facilitate processing and its interpretation. This is done primarily by grouping information on issues that typology analysis. As usual for every problem or issue studied numerical information consists of a large number of data, they have the tables.

Tables are an important means of rendering the information gathered ordered facilitating the reading, comparing, making calculation of analysis and interpretation of the phenomenon. Design tables and ordering data within them, is an essential link in the chain of operations that make up *the analysis*. To facilitate analysis, data may be expressed in graphical form. Without providing additional information from tables, graphs have the quality of this synthetic, suggestive and attractive key features of the phenomenon, providing an overview of existing interdependencies.

Performing calculations analysis

The methods used for this purpose are different, some are specific to business analysis, and others drawn from related disciplines. Thus one can distinguish:

- ✓ methods used to determine the level phenomenon - the comparison method;
- ✓ methods used to study the phenomena structure their components, relations of interdependence between them: the method of division results, balance method;
- ✓ methods to identify the factors which determine economic phenomena and relations between them - the method of scientific abstraction, modeling methodology, etc.;
- ✓ methods to identify the factors which determine economic phenomena and relations between them - such as scientific abstraction method, modeling method, etc.;

✓ method of measuring the influence of modification factors, to quantify the effect of mobilizing resources.

Interpreting results and drawing conclusions

Interpretation of data is the phase review process is finalized, it is a conclusion of processing of information collected. Interpreting the results of calculations performed is the most difficult and highly responsible in the process of analysis.

Drawing Conclusions and proposals must be clear, contains no contradictions, including still general rules.

CONCLUSIONS

1. A full analysis of the business unit, or an economic phenomenon, the analysis assumes all the benchmarks, and thus use all the methods mentioned, of course, choosing among them those that more closely match the specifics of the phenomenon studied and the characteristics of existing information.

2. Data analysis of financial statements adds relevance, clarity and expressiveness in the economic and financial assessment of the enterprise, is useful, first, the management company, as they facilitate management decisions on dealing, investment, credit, etc.. And external users of accounting information to be informed on the solvency, profitability and other financial and economic issues that characterize the business concerned.

exact answers to the goals made. They should be based on factual material collected and processed in the analysis. Conclusions cover the key issues of business of the farm and proposals, practical measures to increase its effectiveness.

Documentation of analysis should be well structured, logical, following the highlighting of what is essential. It must present facts in a certain order, starting from general to particular, from complex to simple. All items listed on the pattern of business analysis are

3. If analysis of financial statements frequently repeated methodological issues (feasibility studies, business plans, etc.), can develop appropriate algorithms, which favors a high degree of automation not only gather information but also analytical calculations.

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THE ANALYSIS OF PRODUCTIVE POTENTIAL OF LAND FUND IN AGRICULTURAL UNITIES OF THE REPUBLIC OF MOLDOVA

Corina BURCIU¹, Edvard BULGAC²

¹State University of Agriculture of the Republic of Moldova, Chisinau, str. Renaşterii, 6
Postal Code: 2049, Chisinau – 49, Phone: (+373-22) 43-22-09; mob.(+373 (0)690 37172, Fax :
(373-22)31-22-58; (+373 22) 21-28-08; Mob: .(+373 (0)691 04023
E-mail: c.burciu@uasmd.md or bcorincic@yahoo.com

Key-words: land fund, production potential, allowance.

Abstract

This article is analyzing the variation of yield's rate per hectare of agricultural grounds in dependence of average mark of soil fertility. These data are close to real values of yield's rate, which have been obtained in agricultural enterprises of the Republic of Moldova presently. It has been argued about the necessity of applying a soil processing system to achieve maximum production potential, based on bioclimatic peculiarities of each sort of plants and the adaptability of it in the conditions of respective region.

INTRODUCTION

Reaching the maximum production potential in agriculture is being governed by a complex of factors:natural, technical-material and economic, which differently influence the productive capacity of land. Out of the complex of natural factors primarily can be located soil fertility and the quantity of atmosphere deposition which calls agriculture to get used to drought conditions considering the pedo-climatic peculiarities of developing regions.

MATERIAL AND METHOD

The forms specialized on the activity of 927 agricultural enterprises and general data from the National Bureau of Statistics of the Republic of Moldova have been used as informational source. Concomitantly, statistical reports of 238 agricultural enterprises from the Central region of the Republic of Moldova were used. Legislative and normative papers of the Republic of Moldova and concepts of economy scientists served a methodologic support for this research. The following methods were applied throughout this investigation: installment,

comparative, statistical branches, correlation and regress.

RESULTS AND DISCUSSIONS

Generally soil fertility is nominated by points(marks) of allowance. One point of allowance equals 0.4 q/ha winter wheat; 0,48 q/ha corn; 0.23 sun-flower; 2.92 sugar-beet [1]. According to Land Cadastre of the Republic of Moldova dating 01.01.08 the average land mark per country is 63 points, which allows the production of 25.2 q/ha winter wheat, 30,2 q/ha corn, and 14,5 q/ha sun-flower. The average land mark per administrative district varies from 78 to 50 points, according to data shown in table 1. The randament per one ha varies the same way for the main agricultural crops. (tab.1).

Table 1 data shows the volume of potential harvest per hectar, which could be obtained just upon soil fertility.

These data are nearly to those obtained the last few years where radically being reduced the quantity of fertilizers used.

Calculation results (tab.1) show that one hectar randament varies depending on the average mark of allowance.

Table 1. Potential harvest of the main agricultural crops based on soil land mark

| District, cultivation region | Average land mark, points | The average yield per hectar calculated according to allowance mark, quintal | | | |
|------------------------------|---------------------------|--|------|------------|------------|
| | | Winter wheat | Corn | Sugar beat | Sun-flower |
| North Region | 70 | 28,0 | 33,6 | 204,4 | 16,1 |
| Briceni | 70 | 28,4 | 34,1 | 207,3 | 16,3 |
| Drochia | 73 | 30,0 | 36,0 | 219,0 | 17,2 |
| Dondușeni | 78 | 28,4 | 34,1 | 207,3 | 16,3 |
| Edineț | 78 | 31,2 | 37,4 | 227,8 | 17,9 |
| Fălești | 65 | 26,0 | 31,2 | 189,8 | 15,0 |
| Florești | 71 | 28,0 | 33,6 | 204,4 | 16,1 |
| Glodeni | 72 | 28,8 | 34,6 | 210,2 | 16,6 |
| Ocnita | 71 | 28,0 | 33,6 | 210,2 | 16,6 |
| Râșcani | 70 | 28,0 | 33,6 | 204,4 | 16,1 |
| Sângerei | 55 | 24,0 | 28,8 | 175,2 | 13,8 |
| Soroca | 71 | 28,4 | 34,1 | 207,3 | 16,3 |
| Central Region | 60 | 24,4 | 29,3 | 178,1 | 14,0 |
| Anenii Noi | 59 | 24,0 | 28,8 | - | 13,8 |
| Călărași | 50 | 19,6 | 23,0 | - | 11,0 |
| Criuleni | 69 | 27,2 | 32,6 | - | 15,6 |
| Dubăsari | 66 | 26,0 | 31,2 | 189,8 | 15,0 |
| Hâncești | 58 | 23,2 | 27,8 | - | 13,3 |
| Ialoveni | 58 | 24,4 | 29,3 | - | 14,0 |
| Nisporeni | 54 | 22,0 | 26,4 | - | 12,7 |
| Orhei | 63 | 24,8 | 29,8 | 181,0 | 14,3 |
| Rezina | 62 | 24,8 | 29,8 | 181,0 | 14,3 |
| Strășeni | 55 | 21,6 | 25,9 | - | 12,4 |
| Șoldănești | 74 | 30,0 | 36,0 | 219,0 | 17,2 |
| Telenești | 58 | 23,6 | 28,3 | 172,3 | 13,6 |
| Ungheni | 54 | 22,0 | 26,4 | 160,6 | 12,7 |
| South Region | 60 | 23,6 | 28,3 | - | 13,6 |
| Basarabasca | 56 | 23,6 | 28,3 | - | 13,6 |
| Cahul | 58 | 22,8 | 27,4 | - | 13,1 |
| Cantemir | 57 | 23,2 | 27,8 | - | 13,3 |
| Căușeni | 62 | 24,0 | 28,8 | - | 13,8 |
| Cimișlia | 62 | 24,8 | 29,2 | - | 14,3 |
| Leova | 57 | 22,4 | 26,9 | - | 12,9 |
| Ștefan-Vodă | 62 | 24,8 | 29,8 | - | 14,2 |
| Taraclia | 60 | 23,6 | 28,3 | - | 13,6 |
| UTA Gagauzia | 56 | 22,4 | 26,9 | - | 12,9 |
| Average per country | 63 | 25,6 | 30,7 | 186,9 | 14,7 |

Calculation based on sources: [1, p.50-71]

We can notice a huge difference in the view of districts while analysing data from table 1. Thus, Calarasi District marks on average an allowance of 50 points, where the average harvest of main crops is more reduced than the average per republic with 5,2 q for wheat, 6,2 q for corn and 3,0 q for sun flower. Edineț and Dondușeni districts show an average allowance mark of 78 points and agricultural crops' randament is much higher than all

districts and growth regions. Soil quality in these districts compared to average data per Republic could provide the average yield per: of wheat 6,0, corn – 7,2, sugar beet – 43,8 and sun-flower – 3,4 quintal.

These results confirm that in order to achieve maximum yield production we need to increase the average production per hectar 30-40% after implementing certain measures. But the possibilities of administrative districts and growth regions vary by increase of randament per hectar, as shown in table 1. Thus, a system of ground tilling based upon bioclamate peculiarities per each sort of crops is needed and its adaptability to respective conditions of certain region.

The multiple scientific researches show a decisive part due to spread of mineral fertilisers increasing the productive potential of agricultural land. Scientists think that optimal spread of fertilizers contribute to the encrease of cereal yield with 27-35%, sugar beet with 33-38%, sun-flower with 21-23%.

A sudden cut in quantity of spread fertilizers was noted starting with 1991 from 226 thousand tones of active substance down to 12,1 in 1999.

A sudden cut in quantity of spread fertilizers leaded to wheathering soil fertility, decrease of nutritive elements level and especially minimising agricultural yield production. The export of soil nutritive elements with harvest overtook 10 times its incorporation with mineral and organic fertilizers[2], according to university proffessor C.Zagorcea .

The researc demonstrates a correlation between average yield per hectar, mineral fertilisers redeem and quantity of atmospherical precipitation. (table2).

Table 2. The link between quantity of atmospherical precipitation and efficiency of mineral fertilisers used for sugar beet in the Republic of Moldova.

| Groups by quantity of atmospheric precipitation, mm | Average quantity of precipitation during vegetation, mm | Average production per hectar, q | Quantity of fertilisers redeem, kg s.a./ha | Yield increase accounting mineral | One kg active substance retrieve, kg rizocarpri | Coefficient of even correlation | Effective value of Student criteria (theoretical value 1,96) |
|---|---|----------------------------------|--|-----------------------------------|---|---------------------------------|--|
| Up to 300 | 268 | 245,5 | 308 | 27,7 | 9,0 | 0,39 | 2,63 |
| 301-400 | 364 | 287,4 | 211 | 76,4 | 21,0 | 0,43 | 3,86 |
| over 400 | 445 | 335,4 | 278 | 91,7 | 33,0 | 0,53 | 6,57 |

Calculation based on sources [3, p.154].

Data from table 2 show that quantity increase of atmospherical precipitation from 268 up to 445mm forwarded to increase of mineral fertilisers efficiency in the Republic of Moldova. This results in increase of average yield production per hectar with 89,9q sugar beet, production increase with 64,0q. The active substance redeem per kg increased 3,6 times.

According to results' analysis (tab.2) the link level between average yield per hectar and quantity of mineral fertilisers increases proportionally with atmospherical precipitations increase. The increase of even correlation coefficient from 0,39 up to 0,53 speak about the increase of fertilisers influence upon harvest in the view of soil humidity increase.

CONCLUSIONS

1. The randament of one hectar varies depending on average mark of allowance. Thus the average mark of allowance in the North is 70 points, so, the average harvest per hectar overtakes data from Central, Ssouthern and UTA Gagauzia regions: for winter wheat –

17,2-25,0%; for corn – 16,7-24,9%; for sunflower – 16,7-24,8%.

2. We need to increase the average harvest per hectar with 30-40% in order to achieve the maximum harvest potential after implementing agrotechnical, hydrotechnical and economical measures, differentiation of fertilisers dose based upon pedo-climatic conditions.

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ANALYSIS OF THE ECONOMICAL MEANS EFFICIENCY FROM AGRICULTURAL ENTERPRISES PATRIMONY

Virginia COJOCARU

State Agrarian University from Moldova, 44, Mircesti street, 2049, Chisinau, Republic of Moldova, tel. (+373 22 212808), gsm (+ 373 69063724) , Email: ginacojocaru@mail.ru

Key words: patrimony, asset, debts, liquidity

Abstract

Economical means utilization efficiency in agricultural enterprises from Republic of Moldova is achieving low level, in dynamics this indicator records considerable reductions of the recovery ratios. Given that reason in article is analyzed a system of ratios, among these correlation between current and immobilized assets. Have been observed very low level balance weight of current assets, that has expressed to us composition of patrimony with advantage of immobilized assets, situation which creates difficulties in agricultural production caused by deficiency or lack of quality seed material, mineral fertilizers, petrol products.

INTRODUCTION

The activity of economic agents in the market conditions is impossible without the direct or indirect usage of financial sources. The achievement of the complex objectives that is related to the agricultural enterprises of the Republic of Moldova in actual new conditions of farmer need a significant volume of financial sources [1]. The structure of the assets financial sources, the domination of certain components on some other ones, and the evolution of the liabilities structure determines the stability and financial interdependence of the enterprise in direct way [2]. From the point of view of solvency of the agricultural enterprises of the Republic of Moldova are at the inferior limit of acceptability [3].

MATERIAL AND METHODS

An informational basis for research constitutes financial reports on the activity of 47 agricultural enterprises of Ungheni district of the Republic of Moldova. Theoretical concepts of autochthonous savants, national standards of accounting and other legal, adjacent and normative acts have served as a methodological support of the investigations. There were used during the research process: monographic methods according to which the

scientific works of the savants from the country were studied; methods of comparison and of those of the rates were also used.

RESULTS AND DISCUSSIONS

For the development of economic and financial activity, the enterprise forms its property, which represents the totality of economic sources verified by the economic agent. The notion "assets" is applied in the financial reports for reflection of this property being at the disposal of the enterprise. The analysis of the property situation supposes the examination of assets controlled by the enterprise, regardless of their financing sources.

The efficiency of the assets usage is appreciated in the process of analysis available on the basis of the rate system, which are presented in the table 1.

According to the calculations effectuated in the table 1 it is stated that the predominant share belongs to the current assets in the structure of the agricultural enterprises property of Ungheni district of the Republic of Moldova, which constitutes at the end of management year 66 %.

This is appreciated positively because the current assets are rotating quicker and contribute to the property acceleration.

Lowering is observed of the assets immobilization rate from 41% up to 34% in dynamics that is proved in the conditions when

insufficiency of quality seeds, chemical fertilization and other materials of industrial origin used in agriculture is supposed.

Table 1. Analysis of the assets usage efficiency in the agricultural enterprises of Ungheni district of the Republic of Moldova, by the rates method

| Indicator | At the end of the year 2007 | At the end of the year 2008 | Absolute deviation(+,-) |
|---|-----------------------------|-----------------------------|-------------------------|
| A | 1 | 2 | 3 |
| 1. Rate of assets immobilization, coefficient | 0,41 | 0,34 | - 0,07 |
| 2. Rate of the property for production, coefficient | 0,65 | 0,63 | - 0,02 |
| 3. Rate of the current assets, coefficient | 0,59 | 0,66 | + 0,07 |
| 4. Rate of the technical composition of the assets, coefficient | 0,58 | 0,42 | - 0,16 |
| 5. Rate of the assets perfectly cash, coefficient | 0,05 | 0,02 | - 0,03 |
| 6. Rate of the assets ability to reimburse, coefficient | 0,7 | 0,83 | + 0,13 |
| 7. Number of the current assets rotation, coefficient | 1,17 | 1,32 | + 0,15 |
| 8. Number of rotations of sales and materials stocks, coefficient | 1,89 | 1,87 | - 0,02 |
| 9. Period of rotation of the current assets, days | 308 | 273 | - 35 |

The increased rate of the property for destination of production characterizes positively the structure of the enterprises assets. This means that from the total amount of the assets controlled by the agricultural enterprises 63 % can be used directly for the operational activity development at the end of the year 2008. But the decrease of this is appreciated negatively in dynamics that indicates that the rhythm of increasing of the total assets overcomes the rhythm of increasing of fix assets and those of the sales and materials stocks.

The assets rate is situated perfectly in cash at a very low level, with a negative tendency of decrease. In the year 2008 the share part of cash assets in the total amount of the property decreased from 5% up to 2 %. This fact can make difficulties regarding the payment of current duties.

The rate of assets recovery has recorded a low increase during the year 2008, that increased in comparative with 2007 year with 18,6%.

A slow growth has registered the rate of assets with the ability to reimburse that increased with 18,6 % in comparison with the year 2007. Also an increase in dynamics has registered the number of rotations of the current assets, which increased with 12,8 %, this fact has conditioned the rotation of the current assets with 35 days. So, we can deduce that the

agricultural enterprises of Ungheni district have registered better results in the efficient assets usage in the analyzed period.

The enterprise property can be also analyzed at the residual value of this one, in this case there is the notion of the net property used that is also named and native nets. The property value can be determined by two variants. The first approach defines the net property as the assets value decreased with debts dimension (for the long and short term):

The net property = Total asset – (Debts for the long term + Debts for the short term)

The second approach determines the net property as the assets value decreased with debts dimension for the short term. The calculation formula is the following one in this case:

The net property = Total asset - Debts for the short term

There is the first modality used from two existent ones of definition and calculation of the net property. The economic content of the given indicator can be expressed in these conditions in such a way: the net property reflects the volume of the controlled assets of the enterprise which are formed only on the account of the proper sources of financing and are not burdened with debts.

The calculations effectuated in the table 2 certify the fact that the financial balance

principle has been observed in the analyzed enterprises regarding the property formation on the account of the sources of financing with special destination. This conclusion is deduced from the fact that at the end of the year 2008 and at the end of the year 2007, as the net assets for the long term, so the current net assets have positive values. It is to mention that the predominant part of the net property as in the year 2007 (76,62 %) so in 2008 (64,79 %), represents the assets for the long term.

The net property is calculated by the first approach in the table 2 in the analyzed essences. Yet the reduction of this share part has been observed with 11,83 percentage points.

It is necessary to carry out the analysis of the insurance situation with money availabilities, of solvency and paying capacity for a correct, competent and multilateral appraisal of the economic-financial balance.

Table 2. Structure analysis of the net property in agricultural enterprises of Ungheni town of the Republic of Moldova in dynamics

| Asset | | | Debts | | | Net property | | | |
|---------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|-----------------------------|---------------------|
| Indicator | Suma, lei | | Indicator | Suma, lei | | At the end of the year 2007 | | At the end of the year 2008 | |
| | At the end of the year 2007 | At the end of the year 2008 | | At the end of the year 2007 | At the end of the year 2008 | Amount, lei | Specific gravity, % | Amount, Lei | Specific gravity, % |
| A | 1 | 2 | B | 3 | 4 | 5 | 6 | 7 | 8 |
| 1.Asset for the long term | 53990847 | 60945497 | 1.Debts for the long term | 12239401 | 15568707 | 41751446 | 76,62 | 45376790 | 64,79 |
| 2.Current assets | 78823760 | 117780109 | 2.Debts for the short term | 66080778 | 93123050 | 12742982 | 23,38 | 24657059 | 35,21 |
| Total asset | 132814607 | 178725606 | Totally debts | 78320179 | 108691757 | 54494428 | 100 | 70033849 | 100 |

The capacity of the enterprise to maintain its money obligations, correspondingly to pay off payments at the redeemable terms represents solvency or paying capacity of the enterprise.

The evolution of the liquidity indicators is presented in the table 3 within the agricultural enterprises of Ungheni district taken as an object of study.

Table 3. Liquidity analysis of the balance sheet in agricultural enterprises of Ungheni town of the Republic of Moldova in dynamics

| Indicator | At the end of the year 2007 | At the end of the year 2008 | Absolute deviation (+,-) | Optimal interval |
|--|-----------------------------|-----------------------------|--------------------------|------------------|
| 1. Rate of absolute liquidity, coefficient | 0,098 | 0,043 | - 0,055 | [0,2-0,25] |
| 2. Rate of intermediary liquidity, coefficient | 0,59 | 0,58 | - 0,01 | [0,7-0,8] |
| 3. Rate of current liquidity, coefficient | 1,19 | 1,26 | + 0,07 | [2,0-2,5] |

It results from the effectuated calculations in the table 3 that a negative tendency of lowering of the liquidity coefficients was set in the agricultural enterprises subjected to study during the year 2007 – 2008, with the exception of the current liquidity.

The level of the absolute liquidity rate means that at the end of the year 2007 agricultural essences were capable to pay 9,8 % from the obligations, but at the end of the year 2008 the volume of this rate had been reduced up to 4,3 %. These values are smaller than the optimal level of the given coefficient demonstrating a

negative evolution as a result of the amount lowering of cash assets available in the conditions of growth while the debts for the long term had been increased up to 40,9 %. Lowering of the intermediate liquidity rate from 0,59 in the year 2007 up to 0,58 in the year 2008 is the result of the amount lowering of cash assets and debts in the conditions of debts growth for the short term. At the same time the intermediate liquidity value is smaller than the optimal level. Because of this the analyzed enterprises will not be able to get the

first commercial credits, therefore the creditors financial risk in this case is great.

A slow growth registered the current liquidity rate which had increased with 0,07 in the year 2008 as regards 2007, that is appreciated positively. Yet we are to mention that the volume of this rate is not included into the optimal interval that demonstrate that the agricultural enterprises do not dispose of assets in necessary volumes for covering urgent debts.

In resolving the liquidity problem the administration of the agricultural enterprises would have, for the first time, to review and to reduce commercial credits by renegotiations with suppliers, clients and intermediaries, to reduce the rotation duration of the property assets and to insure improvement of cash payments, of transfers.

CONCLUSIONS

1. Efficiency of economic assets using in the agricultural enterprises of Ungheni district of the Republic of Moldova has been at the reduced level, registering in the dynamics of considerable decrease of the reimbursement rates.

2. The predominant share part is related to the current assets in the structure of the agricultural essences property which at the end of the financial year constitutes 66 %. This is appreciated positively because the current assets are rotating quicker and contribute to the property acceleration. Lowering of the assets immobilization rate is observed in dynamics from 41 % up to 34% that is proved in the conditions when insufficiency of quality seeds,

chemical fertilization and other materials of industrial origin used in agriculture is supposed.

3. Analyzing the efficiency of assets in the agricultural enterprises we reveal an increase in dynamics of ability to reimburse total assets, including those current ones which have conditioned the rotation acceleration with 35 days.

4. The effectuated calculations certify that the financial balance principle has been observed within the analyzed essences regarding the property formation on the account of the sources of financing with special destination. It results from the fact that the net assets have positive values as at the end of 2007 so in 2008.

5. An evolutionary character of the liquidity rates demonstrates that the agricultural enterprises of Ugheni district are not in state to pay off the obligations for the short term from the cash assets account, debts for the short term so the current assets taken on the whole.

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THE ROLE AND THE NECESSITY TO CLUSTER THE AGRO-INDUSTRIAL SECTOR OF THE REPUBLIC OF MOLDOVA

Maria COJOCARU

The State University of Moldova, Chisinau, 60 Mateevici A. st., MD-2009, Chisinau, Republic of Moldova, Phone: +373 22 577 401, Fax: +373 22 244 248; E-mail: mcojocaru73@rambler.ru

Key words: *cluster, competition, agricultural sector*

Abstract

The scientific paper presents a whole range of arguments which prove that the implementation of innovational technologies based on clusters are an efficient and important tool to make the agrarian sector more efficient and stable. It will increase the competitiveness of the agricultural produce, develop the entrepreneurship and improve the living standard in the rural environment.

INTRODUCTION

Based on the experience of the development of successful companies and prosperous economic systems, the most flexible form of economic growth has been the cluster mechanism. Thus, there is a need of creating cluster-type agro-industrial formations, where the investors' risk decreases. The creation of clusters offers prospects of profit both, for the agricultural producers and for the processing, commercial and service enterprises making conditions for the formation of a strategic marketing policy.

The correct combination of the types of activity in the Agro-industrial complex system on cluster basis assures the competitive advantages and its stability. Of great importance for the formation of competitive advantages of agricultural enterprises, included in the cluster, are the flexibility and the ability of prompt reaction to the changes taking place in the market domain.

MATERIAL AND METHOD

The subject of research consists in the theoretical and practical aspects of agricultural clusters' formation and development. The methodology of research is based on the positions of the system analysis, the theory of cluster analysis, the works of the leading representatives of the scientific schools of management, economics, and the statistical

data of the Department of Statistics of the Republic of Moldova. This article applies general scientific methods of scientific knowledge, comparisons and analogies and other.

RESULTS AND DISCUSSIONS

The Republic of Moldova has been undergoing economic and social changes that involve matters of regional development, the main tasks of which are the following:

- a) The creation of conditions for the stable economic development of economic agricultural entities activating on the territory of the region;
- b) The maintenance of the necessary level of life and the social security of the region's population;
- c) The resolving of the ecological problems.

One of the most important instruments of strategic administration is the state settlement of economic and social processes, taking place in the agricultural sector.

In spite of the migration and urbanization processes, the Republic of Moldova is an agricultural country since 60% of the country's population lives in villages. The situation with the labor resources in the agriculture may be called critical. Thus, in comparison to 2000 the population's number was reduced from 766 thousand to 409 thousand people in 2008. This can be explained by the fact that throughout a longer period of time an emigration of the

labour force to the cities and other countries has been going on. At the same time, in the agricultural sector, by 01.01.2008, approximately 32.8% of all the working population was employed [2].

We should mention that in the Republic of Moldova the balance of the food security has been shattered, the quota of imported products has been growing. At the same time, over 90% of imported goods may be produced in our country.

Some of the leading goods' markets of any country are the food markets that ensure the active development of the agricultural clusters. The clusters of small and middle businesses in the sphere of agricultural production may form based on self-organization in the result of the natural integration and cooperation of the production or with the help of regional and local authorities.

The cluster approach to the increase of the marketability of agricultural enterprises represents a special combination of territorial and the multisectoral management principles, making the stimulation of integration processes at the meso-level of economics possible. At the creation of successful, as for marketability, agricultural clusters, a synergetic effect from the interaction of cluster members will appear.

In agriculture, the cluster represents a unification of agricultural producers by the cooperation, covering the production, processing, production sale, the supply, preparation and credit domains.

A complex combination of competition and cooperation is formed in the agricultural clusters. On the regional market the agricultural clusters appear as single network and competition agents that allow them come out on equal principles and withstand the destructive tendencies of global competitiveness.

The advantage of clusters consists in the novelty and the growth of labor capacity in the agricultural production in mid-range and long-term perspective in comparison to the locally isolated agricultural producers. The agricultural enterprises that are part of the cluster benefit of the concentration of primary agricultural producers (including the farm

enterprises), and also of those knowing the customers' needs and the food processing and commercial enterprises having established relationships with them.

The participation in the agricultural cluster offers advantages to the agricultural producers in the access to the new technologies, the methods of work and the opportunities of fulfilling the delivering of the manufactured production.

However, one of the tasks for creating clusters in the agricultural production represents the accommodation to the permanent changes of the competitive environment and the market demand, as well as the diminishment of the market influence of the importers of agricultural production on the goods' markets of the Republic of Moldova. The creation of clusters may influence the goods' production (namely the foodstuffs) with new properties. It must be noted that the small and middle enterprises incorporated in clusters strengthen their marketability and the position on the goods market.

There is a range of conditions that may contribute as well as hinder the clusters' development. The real profits in case of their formation, based on the international experience, should occur in approximately 10-15 years. The self-organization of enterprisers, as a rule, is fulfilled at the initiative of the leader-enterpriser. It is important to pay attention to the fact that the enterprises – potential participants in the possible clusters, as a rule, produce similar types of goods (services) and are competitors one for the other on the goods' markets. In this relation, the enterprisers are afraid, and that is not without reason, when entering the cluster of not losing the business (due to the absorption by the leader-enterpriser).

The most difficult moment in the creation of clusters in the early stages represents the achievement of confidence among the enterprisers when forming the assets. Factors of unification of economic interest for the formation of clusters might be:

- 1) the conduction of a single price policy on the goods' market;
- 2) the widening of the goods' and services' production volume by the participants;

3) the conduction of a single marketing policy;

4) the introduction of innovative technologies – as a result of the goods' production integration and cooperation and its sale on the goods' markets.

At the same time the primary agricultural producers who are not interested in the high extra-charges of the intermediates and the trade markups on the sold production due to the following reasons:

1) The growth of the product's price leads to the decrease of its demand on the market, that sooner or later might bring to overproduction;

2) The high intermediation extra-charges and the trade markups seize the profits of primary agricultural producers due to the redistributive processes. The factors mentioned above should strengthen the motivation of agricultural enterprises to enter clusters.

In the developed market countries the clusters were formed aiming at increasing the marketability of enterprises with homogenous types of production on the goods' markets, based on the correspondence of the economic interests of such enterprises. In its fundamental work "Competition", M. E. Porter represents the cluster as a "A cluster is a geographically proximate group of companies and associated institutions in a particular field, linked by commonalities and complementarities" [1].

In countries with developed economy, most farmers don't work alone, but are members of 2-3 or even more cooperatives – in the supply, marketing, crediting and other domains. At the same time the farmers are twice more protected – by the state and the cooperative. The cluster form of organizing the production allows the farmers achieve high profitability.

In comparison to many other countries, where the realization of cluster technologies allowed them get leading positions on the world market, the Republic of Moldova, unfortunately, doesn't have even a state conception of cluster policy. The lack of a developed cooperation at agricultural producers of the Republic of Moldova leads to the fact that they obtain 10-15% of the profit from selling finished products. The remaining part goes to the processing and the trade enterprises as well as the multiple

intermediates. This disproportion mainly leads to the growth of products' prices in the Republic of Moldova.

It is well known that currently approximately 50% of the economically leading countries are involved in clustering, where the main domain for the formation of cluster systems represents the industry, and fewer clusters are formed in the agro-industrial domain of production, though there're examples of countries with a positive experience while forming such clusters.

California is the leader among the USA states in the domain of agro-industrial production after forming here in 1948 an agricultural cluster consisting of around 250 formations: providers, viticulture farm enterprises, fertilizers' producers, irrigation systems, vine processing and wine production companies, packing materials' and labels' producers, commercial and tourist companies. At present the cluster share constitutes 14% in the production of agricultural products in the region, where about 1.1 million people are employed, whose average personal annual profit constitutes 60 thousand US dollars.

In Denmark, for example, innovative technologies for the agribusiness and the food industry have been developed. Currently there're about 30 leading clusters functioning in this country. Among these, a special role in the development of the country's marketability belongs to the agricultural clusters. At the turn of the 90', Denmark used to import vastly food products. After the creation of agricultural clusters, Denmark became an exporter country of food products. At present, about 60% of the agricultural production of this country is exported.

In certain former Soviet Union countries, for example Kazakhstan and the Ukraine, a special attention has been paid lately to the conversion to cluster policy, as well as in the agro-industrial complex domain. Particularly, in Kazakhstan that according to the statistics proves fast paces in the agricultural economic growth more attention is paid by the state to the development of the cluster policy. Many research institutions have been involved in the investigation of this problem, as well as the leading economic experts of the USA. The

consultant of the project “Kazakhstan’s Marketability and the Perspective of Cluster Development” has been the director of the Institute for Strategies and Marketability, Michael Porter.

CONCLUSIONS

1. The analysis of the international experience shows the positive influence of clusters on the region’s economy, that is why we think that the formation of agro-industrial clusters in the Republic of Moldova is necessary. Thus, an important role in the acceleration of organizing clusters must be undertaken by the state bodies, which can draw up forecasts for the formation of clusters taking into account the space distribution and specialization of agricultural production and the organization of contacts between the enterprisers. Such organization work will also contribute to the appearance of confidence among potential cluster participants.

2. The agricultural cluster should be considered as a system of integrated and interconnected forms of organization aiming at solving such problems as the production and the protection of the environment, that means the production of ecologically pure products based on innovative technologies transforming the production wastes into resources for the agricultural development.

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ORGANIZATIONAL STRATEGIES AND THEIR IMPLICATIONS IN THE HUMAN RESOURCES FIELD

Reta CONDEI

The University Of Agricultural Sciences And Veterinary Medicine – Bucharest, 59 Marasti Boulevard, Sector 1, zip/postal code 011464, r_condei@yahoo.com

Key-Words: human resources, Strategic Management, Restructuring practices

Abstract

The organizations are depending of the possible scenarios that can outline the future needs in the context of labor market, economical projects, evolution of technology and changes in the organization strategy. The Strategic Management of the Human Resources represents a set of decisions and actions that are meant to be used in order to formulate and implement some strategies that can optimize the bound between organization and environment in the effort of achieving the objectives. The process of transition to Strategic Management of the Human Resources focuses on four essential elements: the integration of human resources in the strategic planning process; the development of a partnership between the human resources department and the other divisions of the organization; the restructuring of the human resources department.

1. THE STAGES OF HUMAN RESOURCES STRATEGIC MANAGEMENT

The strategic management represents a set of decisions and actions used for the wording and implementation of strategies to optimize the correlation between the organization and the environment, in the efforts to fulfill organizational objectives. The strategic plan is

represented by a comprehensive project which defines the way the organization will use its own capital and personnel resources in order to attain its goals.

The development and implementation process of an organizational strategy assumes several distinct stages, which include defining the long-term and short term objectives and establishing the plans and strategies. The stages are presented in Figure no. 1.

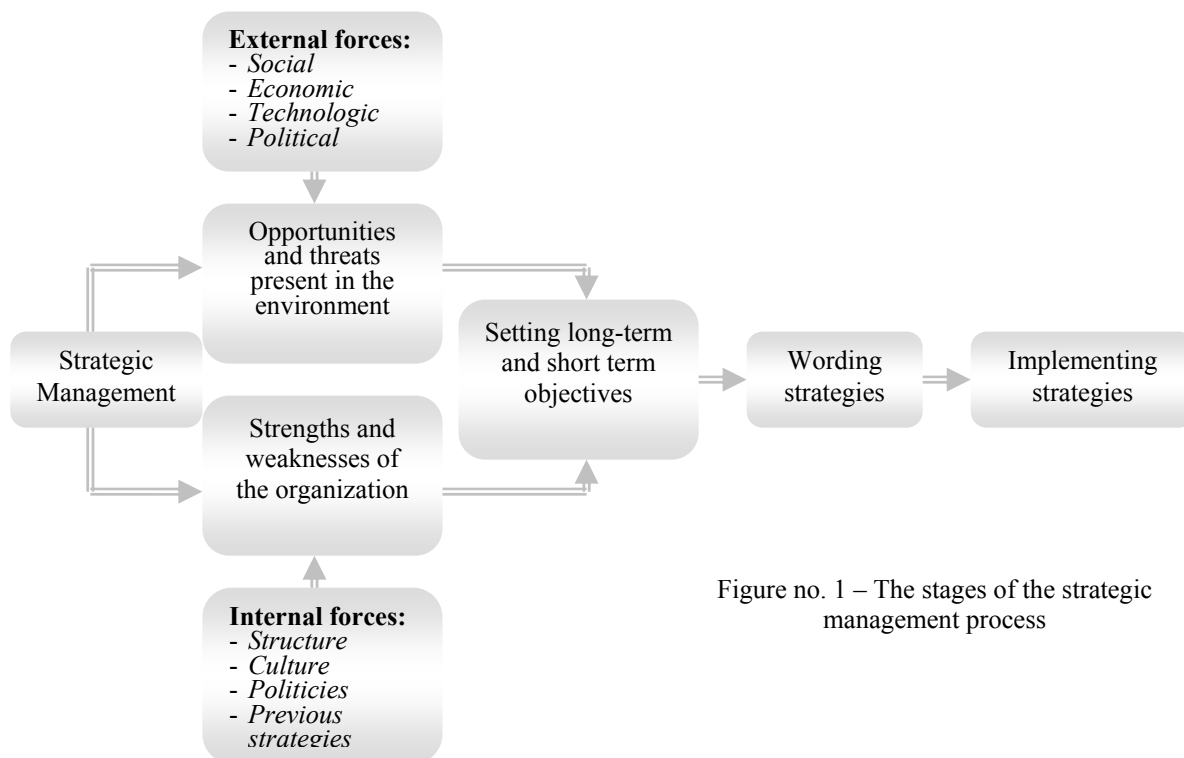


Figure no. 1 – The stages of the strategic management process

2. THE MAIN ALTERNATIVES OF THE ACTIVITY IN THE HUMAN RESOURCES FIELD

Once a strategic plan has been developed, one can precede to the stage of the implementation of the strategy, which represents the correlation process of the functions of an organization with the established strategy; in the human resources field, one follows the orientation of the practices in this field such as to continuously highlight those behavior models leading to the achievement of objectives.

The practices of human resources are divided in six large categories and there are definitions of the extreme approaches of every practice.

The evaluation management systems have been classified in the following categories:

- Hierarchy systems (which involve subjective evaluations, where the feedback from the superiors are decisive)

- Systems based on measuring performances (quantitative evaluations, using criteria such as accomplished sales volume, profit before taxation etc.)

- Mixed systems (which are a combination of the two previous types of systems)

As one can observe in table no. 2, the organizations which are in a stable phase have used mainly the hierarchy systems, while the ones which are still developing have based themselves on the systems of measuring the human performances.

Table 2 – Illustrating the relationships between the diversification strategies and the systems for evaluating the performances

| The system for evaluating the performances | Strategies characteristic for organizations in stationary phase | Strategies characteristic for organizations in development |
|--|---|--|
| Hierarchy system | 55% | - |
| Mixed system | 36% | 56% |
| System based on measuring performances | 9% | 44% |

3. THE MAIN TYPES OF ORGANIZATIONAL STRATEGIES AND THEIR IMPLICATIONS IN THE HUMAN RESOURCES FIELD

A. Global strategies

A global strategy is represented by a comprehensive action plan, which leads to the fulfillment of the objectives related to the sales volume and the profit of the organization as a whole.

There are three main options for establishing general strategies: stability, development and austerity.

B. Activity level strategies

While the global strategies are applicable to the organization as a whole, the activity level strategies are applicable to a production line within an organization. The activity level strategies' purpose is to ensure guidelines for that activity and ensure the correlation with the rest of the organization.

There have been identified three types of activity level strategies: differentiation, cost leadership and concentration.

In the following segment are presented the characteristics of the employees, for each of the tree types of strategies presented, as well as the correspondent human resources practices for a cost leadership strategy, a concentration and a differentiation strategy (table no. 3).

The main specific aspects of the strategic human resources management are:

- The nature of the change the organization has to bear in order to pass towards the strategic human resources management;
- The reasons many organizations don't adopt the strategic human resources management;
- The general transition process towards the strategic human resources management, which includes four elements.

Table 3 – Characteristics of the employees and human resources practices, for different competitive strategies

| The cost strategy | The concentration strategy | The differentiation strategy |
|--|---|--|
| <p>Characteristics of the employees</p> <ul style="list-style-type: none"> • predictable, repetitive behavior • concentration on short term results • relatively independent behavior • moderate preoccupation for quality • high preoccupation for quantity • high preoccupation for results • low preference for responsibilities • low flexibility for change • low level of involvement in the activity | <ul style="list-style-type: none"> • predictable, repetitive behavior • concentration on medium term results • high preoccupation for quality • moderate preoccupation for quantity • high preoccupation for the production process • preference for responsibilities • moderate flexibility for change • high level of involvement | <ul style="list-style-type: none"> • creative, innovative behavior • concentration on long-term results • cooperative behavior • moderate preoccupation for quantity • moderate preoccupation for the production process • preference for responsibilities • flexibility for change • moderate involvement in the activity |
| <p>Human resources practices</p> <ul style="list-style-type: none"> • low level of participation • filling positions using internal sources • narrow specialization • payment according to the hierarchy level • low security of the position | <ul style="list-style-type: none"> • high level of participation • filling positions using internal and external sources • narrow specialization • payment based on egalitarian principles • a certain level of position security | <ul style="list-style-type: none"> • high level of participation • filling position using external sources • large specialization field • payment based on egalitarian principals • a certain level of position security |
| <ul style="list-style-type: none"> • low number of incentives • low training activity • traditional work/management relationships | <ul style="list-style-type: none"> • some incentives • extensive training • cooperation work/management relationships | <ul style="list-style-type: none"> • many incentives • extensive training • cooperation work/management relationships |

4. THE ROLE OF THE STRATEGIC HUMAN RESOURCES MANAGEMENT

In the case of the strategic management, many organizations develop new cultural and structural models, in order to cope with the requests of the world market.

One can noticed that the strategic management of the human resources holds multiple roles within organizations. As such, there are the following roles:

- ✓ strategic;

- ✓ informational;
- ✓ functional – strategic;
- ✓ administrative;
- ✓ of change management.

5. THE TRANSITION PROCESS TOWARDS THE STRATEGIC HUMAN RESOURCES MANAGEMENT

Two both to the fact that a major change is needed, as well as to the fact that new forces opposed to the transition from the traditional to the strategic management emerge, there is a question to be debated: “How do organizations still manage to make this transition?” This transition process revolves around four essential elements:

1. Integrating the human resources in the strategic planning process
2. Developing a partnership between the human resources department and other members of the organization
3. Coordinating the activities of the human resources department with the global strategy of the organization
4. Restructuring the human resources department in order to ensure the success of the actions.

The strategic integration of the human resources involves:

- ➡ The implementation of a strategic planning process within the organization;
- ➡ The active participation of the human resources departments’ managers in this process.

The partnership– assumes that the human resources department must:

- Know as much as possible the activities of the firm;
- Be fully aware of the needs of the firm;
- Give up the traditional functions of the human resources management;
- Collaborate better with the managers of the firm;
- Demonstrate how important the activity of the department is for the smooth running of the organization.

There has been identified a series of indicators for measuring the performances of the human

resources, indicators which can be grouped in the following categories:

- Organizational effectiveness
- The level of remuneration
- Absenteeism and fluctuation
- Transfers, promotions and employment
- Training and development

The restructuring of the human resources department

In the transition process, it is logical for the human resources department itself to be restructured. As in many cases of organizational restructuring, an essential element in the strategic projecting of a new management unit for the human resources is choosing the activities which will be centralized and those which will be decentralized.

At the level of an organization, there must be at least three types of human resources units, and these are:

- Decentralized teams, which are responsible for the human resources activities within subunits.
- A unit responsible for developing the management skills within the organization.
- A central unit, responsible for the personnel recruitment.

CONCLUSIONS

Many human resources specialists sustain that:

- The strategic human resources management is the most effective form of management;
- There is a large variety of human resources management methods, methods which can be used to help organizations attain their strategic objectives;
- Most organizations should adopt the strategic human resources management.
- Any new human resources structure within an organization must be completed with specialized and competent personnel, capable to transform traditional management into strategic management.

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EVOLUTION OF BEEF PRODUCTION IN ROMANIA COMPARED TO THE EUROPEAN UNION

Georgiana Melania COSTAICHE

University of Agricultural Sciences and Veterinary Medicine Bucharest , 59 Marăști, sector 1, Zip code 011464, Bucharest, Romania , Phone: +40 21 318 22 66, Fax: +40 21 318 28 88, E-mail: melania.sanda@yahoo.com

Key words : *cattle stock, beef production, România*

Abstract

This paper presents the evolution of beef production in Romania during the period 1990-2008 and also a comparison with the E.U. situation starting from the year 2005. It is based on the data provided by National Institute of Statistics , Ministry of Agriculture , Forests and rural Development and F.A.O. The analysis is based on the following indicators: cattle stock , beef production, slaughtered animals and carcass weight. The results show a decrease of cattle stock by 58.4% and of beef production by 50% in the year 2008 compared to the year 1990. In comparison with other E.U countries , Romania presents a lower number of slaughtered animals , a lower live weight at de;overy and also a lower carcass weight. As a conclusion we can say that in Romania cattle stock raised for beef production should increase mainly in the hilly and mountain areas , where pastures and meadows could assure a low costing fattening .

INTRODUCTION

Beef Sector is characterized by a huge number of non profitable farms raising a small number of animals of which just a few are grown especially for meet production .

Animal breeders are mainly directed to milk production , meet production coming on the second position due to the tradition existing in our country for pork consumption. Breeders are using mainly extensive fattening systems leading to a long raising length , a low forage conversion rate because it si not assured a corresponding energy/protein ratio , low average daily gains, a low live weight at slaughter and also low carcass weights[1].

MATERIAL AN METHODS

In order to analyse the evolution of meet production, the following indicators have been used: cattle stock , meat production and average beef consumption during the period 1990-2008.

In order to comparatively analyse the situation in the EU , the following indicators have been utilized: slaughtered cattle stock, beef production, carcass weight during the period 2005-2007. The data have been collected from

the National Institute for Statistics [2], Ministry of Agriculture, Firests and Rural Development [3] and F.A.O.[4].

RESULTS AND DISCUSSIONS

The analysis of cattle stock has shown a continuous decrease since 1990 to the year 2000 from 1,000 heads to 2,870,000 capete, meaning 54.3%. After the year 2000 , we have noticed theta the cattle stock is maintained almost at the same level and in the year 2008 it reached 2,617,000 heads, that is a decrease of just 8.8 % compared to the year 2000. The decrease registered diuring the period 1990-2008 was 58.4%. (Table 1)

This reduction has been determined by the culling of low productive animals and also by farmers who have dimensioned the number of the raised animals according to their possibilities.

Beef consumption has declined in Romania during the period of trasion because of the restrains generated by high meat price (Table 2.)

Analyzing the data from Table 3 we can see that in Romania , meat production registered a decline in the year 2008 by 36.53 % and beef production by 50%.

Table 1. Evolution of Cattle Stock during the period 1990-2008 (thousand heads)

| Specification | 1990 | 2000 | 2005 | 2006 | 2007 | 2008 | 2008/1990 (%) |
|---------------|-------|-------|-------|-------|-------|-------|---------------|
| Cattle | 6,291 | 2,870 | 2,862 | 2,934 | 2,819 | 2,617 | 41.59 |

Table 2. Meat Production in Romania (tons live weight)

| Specification | 1990 | 2000 | 2005 | 2006 | 2007 | 2008 | 2008/1990 % |
|-----------------|-------|-------|-------|-------|-------|-------|-------------|
| Meat Production | 2,420 | 1,447 | 1,508 | 1,401 | 1,503 | 1,536 | 63.47 |
| Beef Production | 633 | 330 | 383 | 318 | 333 | 318 | 50.2 |

Analyzing the data referring to total meat production but also to beef production we noticed an increase by 4.2 % in 2005 compared to the year 2000 for total meat production and by 6 % beef production . In the year 2006 compared to 2005 a decrease by 7% for total meat production and by 16.9% for beef production was noticed. Starting from 2007 both total meat production and beef production are recording a continuous increase . In Romania, the share of beef [production in total meat production is about 22%. In the year 1990 , beef production represented 26.15% in total meat production and in 2005 it has reached 25.3%.

Table 3. Average Meat Consumption in Romania (kg/capita)

| Specification | 1990 | 2000 | 2005 | 2006 | 2007 | 2008 | 2008/1990 |
|------------------|------|------|------|------|------|------|-----------|
| Beef Consumption | 61 | 46.3 | 68.3 | 69.9 | 66.7 | 66.8 | 9% |

Analyzing the data from Table 3, we noticed the lowest beef consumption in the year 2000 compared to the year 1990, the reduction being of 14.7 kg, respectively 24%. The highest beef consumption was registered in 2006, meaning an increase by 23.6 kg compared to the year 2000 , that is 50%.

Meat consumption has increased by 9 % during the period 2008-1990 .

Concerning the comparison between Romania and the EU, we have to watch the data from Table 4.

At the level of the EU , we noticed a decrease by 1.4 % of cattle stock destined to slaughter in 2006 compared to 2005, followed by an increase of 2.4 % in 2007.

Table 4. Slaughtered Cattle Stock (thousand heads).

| Specification | 2005 | 2006 | 2007 |
|-----------------|--------|--------|--------|
| Europe + | 47,220 | 46,551 | 47,674 |
| Eastern Europe | 18,633 | 18,293 | 19,391 |
| Northern Europe | 6,253 | 6,460 | 6,511 |
| Southern Europe | 9,164 | 8,780 | 8,845 |
| Western Europe | 13,169 | 13,017 | 12,926 |
| Romania* | 1,267 | 1,115 | 1,206 |

In Romania, the slaughtered cattle number decreased by 12 % in 2006 compared to 2005, and the EU recorded a decline by 10.6%. In 2007 , the EU registered an increase of slaughtered cattle number by 8.1% while Romania recorded an increase by 5.7 % compared to 2006.

Table 5. Beef Production (thousand tons)

| Specification | 2005 | 2006 | 2007 |
|------------------|--------|--------|--------|
| Europe + | 11,558 | 11,056 | 11,211 |
| Eastern Europe | 3,303 | 3,231 | 3,400 |
| Northern Europe | 1,843 | 1,954 | 1,958 |
| Southern Europe | 2,307 | 2,188 | 2,207 |
| Western Europe | 3,704 | 3,682 | 3,646 |
| Romania | 189 | 194 | 211 |
| Romania/ Europa% | 1.63 | 1.75 | 1.88 |

Analyzing the data we can say that in the year 2005 Romanian beef production represented 1.63% of European beef production . In the year 2006, we noticed 2.6 % increase of beef production at national level compared to the level of 2005 , but also 1.75 % increase at European level.

This increase is due to the increased meat production in Romania and the decrease of meat production in Europe. In the year 2007 compared to 2005, meat production recorded an increase by 11.6% and also its share compared to Europe, reaching 1.88%.

The small slaughter live weight have determined Romania to be placed of one of the last positions concerning carcass weight compared to other EU countries .

In the countries with a long tradition in cattle fattening such as Great Britain, France, Belgium, Austria, Ireland, carcass weight is over 300 kg. In România , IN 2007, beef carcass weighted 175 kg, by 17.4% more than in 2005 . Compared to Belgium, where carcass weight registered 329 de kg in 2005, in România , in the same year , carcasee weight was by 56.5 % lower. Beginning from 2006 , carcass weight has registered a continuous increase in Romania but it is still lower by 46.1% than in the EU, and in 2007 was by 45.8% smaller (Table 6).

Table 6. Beef Carcass Weight in the E.U (kg)

| Specification | 2005 | 2006 | 2007 |
|----------------|------|------|------|
| Belgium | 329 | 323 | 323 |
| Ireland | 324 | 322 | 320 |
| Austria | 312 | 317 | 309 |
| Great Britain | 315 | 320 | 321 |
| Germany | 309 | 313 | 313 |
| France | 287 | 289 | 288 |
| Sweden | 289 | 292 | 292 |
| Czech Republic | 288 | 291 | 291 |
| Finland | 283 | 287 | 286 |
| Italy | 270 | 274 | 275 |
| Slovenia | 266 | 272 | 273 |
| Malta | 262 | 269 | 264 |
| Spain | 259 | 260 | 260 |
| Slovakia | 264 | 262 | 263 |
| Luxemburg | 276 | 273 | 280 |
| Hungary | 259 | 266 | 268 |
| Portugal | 245 | 240 | 240 |
| Denmark | 255 | 261 | 260 |
| Poland | 246 | 243 | 247 |
| Greece | 207 | 209 | 209 |
| Holland | 201 | 200 | 200 |
| Estonia | 198 | 207 | 207 |
| Letonia | 171 | 181 | 178 |
| Lituania | 169 | 233 | 226 |
| Romania* | 149 | 174 | 175 |
| Bulgaria | 143 | 140 | 142 |

In Romania, farms are practicing mainly extensive fattening systems, resulting in along fattening length , a reduced forage conversion rate , because the energy/protein ratio is not a corresponding one leadin to low average daily gains . In small farms, feeding is based mainly on low quality unprocessed forages , meaning high and unefficient consumptions.

Average live weight at slaughter was smaller because of practicing an uncontrolled systems of slaughters both for male and female animals. This happened in the areas where

meat processing plants have not been interested to buy animals based on commercial contracts concluded with farmers and at optimum slaughter weight 450 – 600 kg and where cattle breeders are not joined in milk or meat producers associations.

CONCLUSIONS

1. Cattle stock has decreased during the period 1990-2008, and especially regitered a high decline till the 2000, but atfeter that moment the number of cattle counted about the same values from the year 2000 till 2008.

2. In Romania, meat consumption and also beef production have registered a decline because of the smaller number of slaughterd animals and high prices. This is the reason why it is recommended as met breads to be raised mainly in the mountains areas enabling farmers to get more profit than in case of raising dairy cows. Romanian farmers could use about 2,1 million ha of pastures and meadows in the mountains.

3. In the period 2005-2007, slaughtered cattle stock has increasaed , being by 5.7 higher in 2007 compared to 2006 and compared to the EU.

4. Beff production has increasaed in Romania during the last three years compared to the EU.

5.Beef carcass is smaller in Romania compared to the EU and because of that Romania is placed on of the last positions among other countries. It is recommended as in farms where cattle are raised for beef feeding and housing to be improved .

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RESEARCH ON THE DEVELOPMENT OF PROFESSIONAL SKILLS IN SIMULATED ENTERPRISE

Dumitra COSTEA ¹

¹University of Agricultural Sciences and Veterinary Medicine, Bucharest
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail : dumitracm@yahoo.com

Key words : evolution, simulation, process improvement, management decision making

Abstract

Practice firms, already operating in most other European countries, were evaluated and found to be the teaching method which best responded to the targets to be achieved. The different networks of Practice Firms can provide learning environments through which the students will be able to acquire key qualifications like interpersonal skills as well as practising for a working life all over the world and thus acquiring intercultural skills while also acquiring vocational skills. Practice Firms reproduce the structure and workings of a "real" firm in every way, in terms of work times, surroundings, documentation, interpersonal relationships, and surroundings.

INTRODUCTION

As many complex processes and systems, the enterprise context is a prominent application domain for modelling and simulation. Due to its field proven benefits, modelling and simulation is becoming a powerful method and tool in managing enterprises and designing and engineering enterprise systems. The focus of this special issue is on the role, importance, and application of modelling and simulation (M&S) in a rather extended enterprise context. This extended context implies that enterprise information systems and software applications are designed to enable certain business processes, facilitate interaction of the actors, the system, and the environment, and help in the management of complex organisations such as an enterprise. Thus, application of modelling and simulation in the enterprise context involves a number of socio-technical aspects (information systems (IS), enterprise information systems (EIS), software systems, decision support systems, business systems, human interaction, etc.). Although, the traditional role of modelling and simulation has been seen as instruments to observe dynamic behaviour of systems, measure IT impacts on organisations, and study outcomes of changes, currently the

managerial perspective of modelling and simulation is receiving increasing attention. For example, modelling and simulation can play prominent role in the management of the enterprise, the decision making process, and in monitoring enterprise resources, strategic planning, etc.

MATERIAL AND METHOD

The program promotes the training through the experience acquired in a real environment (working hours, discipline, real working situations, tasks development). Each practice firm focuses on a real office or an enterprise framework in a certain area. The participants work in a real productive atmosphere and learn and realize the requested tasks. At the end of the course the participant has a global concept about office work, with working experience and with adaptation skills for a job as e.g. flexibility and enterprise culture. This methodology based on action-oriented learning allows to operate either on professional or motivational skills level of the trainee. It's important to remind that this model has a training value, not productive. The co-operation with the real companies are turned to individuate the professional needs for improving the training offer . The concept is

valid for all kind of training activities as the company simulation is the “natural place and the “virtual” training path.

Training Objectives:

- To personalise the learning process, i.e. each student rotates through the various departments, performing the tasks that each job requires, staying there as long as is necessary to reach the pre-set objectives.
- To develop certain behavioural skills, whether inside the practice firm, or in dealings with other practice firms.
- To supply adequate and coherent solutions for the needs of real companies.
- To learn how playing a role while taking part in the process of transferring technical knowledge.
- To motivate students by letting them participate more deeply in the learning process, in an atmosphere of co-operation, understand that they can obtain results, see objectives and reach them, and understand the final cohesion between means and ends.
- To decide and take on daily responsibilities in the finding of solutions for real day-to-day problems with customers, suppliers, postal delays, etc

Situation analysis

The practice enterprise concept application was born after a careful analysis to the impact of the training and education offer on the job world. Such analysis has brought results that have put in evidence the inadequacy of the qualifications towards the demands of the firms owed to the lack of practical ability, to the insufficient knowledge of the business environment, to difficulty to work in team, to the scarce application of organizational behaviours, needing a long period of working insertion accordingly with increase of the costs to load of the enterprise.

The classical model of training foresees first a theoretical-practical period within the training structure and after an apprenticeship period in a real enterprise. As an answer to the gap found in phase of analysis it was undertaken the practice firm methodology, the reproduction of real situations of job, and particularly discipline: schedule, relationships, situations of job, development of the offices, team work.

Practice Firms reproduce the structure and workings of a "real" firm in every way, in terms of work times, surroundings, documentation, interpersonal relationships, and surroundings. The duties of individual students are not rigid, but subject to rotation: for each position in each department there is not a pre-set time to reach the objectives. Rotations can vary in relation to the learning time of each trainee.

The program enables students to learn about careers, develop interpersonal and organizational skills, and use technology.

Simulated Enterprises aims to prepare students for their futures through the use of several educational practices that have been shown to benefit students' academic and career preparation. The program integrates experiences outside of faculty with laborator learning. Thus, work-based learning and positive interactions with adults outside the classroom play a central role in the program.

Simulated Enterprises students operate a virtual firm, developing and marketing a line of virtual products and services. The firm is designed to replicate a real business in both structure and practice. Thus, the labour market is set up like an office, with computer workstations for each student, and students are assigned to work in different departments, typically Administration, Accounting, Sales/Marketing, Design, Production and Human Resources. The class selects a CEO, and a vice president oversees each department. Students work in teams to make decisions about how to complete their departmental tasks, which include developing and implementing payroll and billing procedures, creating a business plan, designing a sales catalogue, conducting employee evaluations, and purchasing items from other virtual firms.

The Simulated Enterprises program thus employs a student-centered approach to learning that emphasizes project-based, collaborative learning.

RESULTS AND DISCUSSIONS

The basic idea of simulation is to build an experimental device that "will act" as they imitate the real system in a timely and effective

manner in terms of costs. The objective is to create an environment where information on possible action alternatives can be obtained through experiments.

Simulate now aims to provide knowledge about the functioning of a firm by a reproduction of its management, administrative and organizational methods and working procedures for finding the most appropriate means of training to give young people a wealth of skills and abilities operational "penetrating and maintaining" labor market activity in Simulated Enterprise is a dynamic learning method. The methodology involves the use of space equipped to reproduce accurately the scope of corporate management. It is based on the concept of learning, has made "involving people in all aspects of skills development, and relational skills and behavior experimental work climate within a company.

The aim is to develop students' skills and knowledge and to enhance business knowledge already treated in other courses, to move from a theoretical approach simply learning to practice a more active

In a business simulation, students are required to actively participate in company activities and be responsible by playing a central role in all aspects of company management: accounting and the preparation of a statement, organizational, administrative and fiscal charges, domestic and international trade management, finance, investment banking relationships, the application of ICT ..

Thus students should contribute to management decision making and must meet legal obligations in a simulated work, which is very similar to real one... This company will operate through virtual exchanges of goods and services in a simulated enterprise network. One of the strengths of the methodology is student autonomy. Goal of this methodological issue is to allow students while respecting their individual characteristics and peculiarities, essential cross-cutting skills for future job placement and increase the motivation of each student. Simulation of business activity has the potential to arouse interest among students because it develop a climate of cooperation, encourage teamwork, allowing the collection of his purpose and commitment, all key factors in creating motivation for learning. . Education for start-up entrepreneurs and their

relationship to the world of work .. It is designed to provide participants the necessary skills to enable them to find technical and operational skills, to manage operations related to the provision of services in a total quality perspective and to develop skills and attitudes to work. Basic skills: organizing business - job security, use of computers

- work sites
- management letters and reports
- call office
- management of payments and banking
- personnel management
- compensation of employees and taxes
- for all staff with specific application software.

Simulate now offers students: Autonomy Students must fulfill its mission of trying to understand what is required to achieve the expected results, without intermediary, for any errors occur during affaire. The control and correction must take place on time, although this does not mean avoidance responses to requests or questions requiring an explanation of content. Sense of responsibility. All that is produced documents and transactions in each office has a significant effect on the general functioning of the enterprise. It is therefore necessary for each student to become aware of his rights and take responsibility for how they are executed. To this end, it is best to apply a mark on each document processed, so that even after a period of time, if errors are discovered by outsiders, is always possible to identify this error. In addition, the rotation system is a support tool to increase a sense of responsibility. Collaboration is continuing during the hours of simulation both with and support colleagues

CONCLUSIONS

Practice Firms as a solution for the current situation .

In recent years we needed to understand the differences that exist between supply and demand of work, by singling out and developing methods used in teaching initiatives so as to facilitate people who wish to enter the working market. Practice firms, already operating in most other European countries, were evaluated and found to be the teaching method which best responded to the targets to be achieved. The

different networks of Practice Firms can provide learning environments through which the students will be able to acquire key qualifications like interpersonal skills as well as practising for a working life all over the world and thus acquiring intercultural skills while also acquiring vocational skills.

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ASSESSING THE ECONOMIC IMPACT AND THE TRACEABILITY COSTS IN THE CASE OF BANNING THE CULTIVATION OF GM SOYBEAN IN ROMANIA

Toma DINU, Ioan Nicolae ALECU, Elena STOIAN

University of Agricultural Sciences and Veterinary Medicine, Bucharest
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail: tomadinu@yahoo.fr

Key words: *genetically modified organisms, traceability, economic impact, trade fluxes.*

Abstract

In Romania the genetically modified soybean crop (GMS) has developed due to irrefutable advantages becoming one of the most certain crops, there were 200,000 hectares cultivated with soybean in 2006 out of which over 137,000 hectares with GMS. As early as 2003, a monitoring and further a production traceability insurance system have been implemented. Beginning with 2007, the GMS has been banned from cultivation, with immediate impact in the drastic decrease of the surfaces down to 52,000 hectares in 2008. This paper evaluates the economic impact of the GMS ban on the balance account of the trade through the analysis of trade fluxes and of deficiency payments granted for conventional soybean and the costs of the production traceability insurance system for 2006.

INTRODUCTION

On the 1st of January 2007, along with the accession to the European Union, Romania had, according to the obligations assumed by the Accession Treaty, to ban the cultivation of GMS. This had been accepted for cultivation since 1999, developed very much until 2006 and the ban of cultivation led to drastic consequences for farmers who had to either grow conventional soybean, either to give up soybean and replace it with a less competitive crop, either not to cultivate the land. Despite the fact that deficiency payments to depute the competitiveness loss by forfeiting the GMS have been prevised, the surfaces cultivated with conventional soybean dropped to 59.32 % in the first year and respectively to 27.25% in the second banning year, with visible direct effects on the total production obtained and furthermore on the use of production and on derived products trade: beans, soy meal and soy oils necessary in the mixed feed industry. If the trade flows balance after the 1st of January 2007 for the three products is attributed to the GMS ban from cultivation, the economic impact and the necessary foreign currency effort are evaluated in order to counteract these effects. It is also evaluated the effort the Romanian state

and the European Union made, in order to support the conventional soybean crop based on statistic data from the support bodies as well as the effect at the level of farmers by estimating the effect per hectare.

The cultivators' system for authorizing, monitoring and ensuring the traceability introduced by Romanian authorities assumes the previous authorization, monitoring in cultivation, during harvesting, throughout storage, handling, transportation, processing and marketing. In the second part of this paper we will evaluate the costs of the implemented traceability system for the GMS production in 2006 in Romania.

MATERIAL AND METHOD

In order to assess the economic impact of banning the GMS cultivation, there have been analysed indicators such as surfaces cultivated with conventional soybean and GM soybean before and after January 1, 2007, productions obtained, trade fluxes registered before and after the banning of cultivation for three products derived directly from soybean: soy beans, soy meal and soy oils, quantities and values, deficiency payments granted for conventional soybean and in order to appreciate the effect at the farmers level the average

financial result for the two types of cultures, conventional soybean and GMS was used. The evaluation of the costs of the traceability system has been performed starting from the activities the introduction of this system involved, assessing these costs at the distinct activity level and extrapolating the costs for the activities at the level of all cultivating farmers.

RESULTS AND DISCUSSIONS

Effects on the trade in fluxes

The genetically modified soybean (GMS), glyphosate resistant (Roundup Ready soybean), was introduced into cultivation in Romania in 1999. The main arguments in favour of introducing this variety into cultivation were the fact that Romania has favourable cultivation conditions for soybean, that the farmers had a tradition for this crop (Romania cultivated in the interval 1980-1985 over 400,000 ha of soybean), that it is a reversible technology which could be given up if risks were noticed. The risk of infesting the environment with pollen from the new variety of GMS is low because on the one hand the soybean is cleistogamous and on the other hand it has no close relatives in the spontaneous Romanian flora. The risk of infesting the human food chain with GMS is also low because the main

destination of the GMS production is animal feed, mainly fowl and swine, in which it is integrated in the form of protein supplement as meal or, more rarely, as beans and in the form of energetic supplements as soy oil. Soy oil could get directly into the human food chain but, in comparison to other vegetal oils, the consumers perceived it as being of low quality, for which reason the quantities consumed were relatively reduced. Soy oil could also get into human consumption when processed as margarine. In addition, at that moment, in Romania, over 15% of the arable land was not cultivated, the structure of the crops cultivated depleted very much the maize, wheat and sunflower accounted for more that 80% of the cultivated surface, conventional soybean was only cultivated on 63,100 ha and solutions were prospected to diversify the crops' structure and alternatives were sought to counteract the tendency to abandon the cultivation of the land. Last but not least, the fact that the GMS allowed using a total herbicide in cultivation was an important argument, especially for the alluvial plane areas, where a high level of problem weeds infestation was registered. The surfaces cultivated with conventional soybean (CS) and the productions obtained (diagram 1) varied in time.

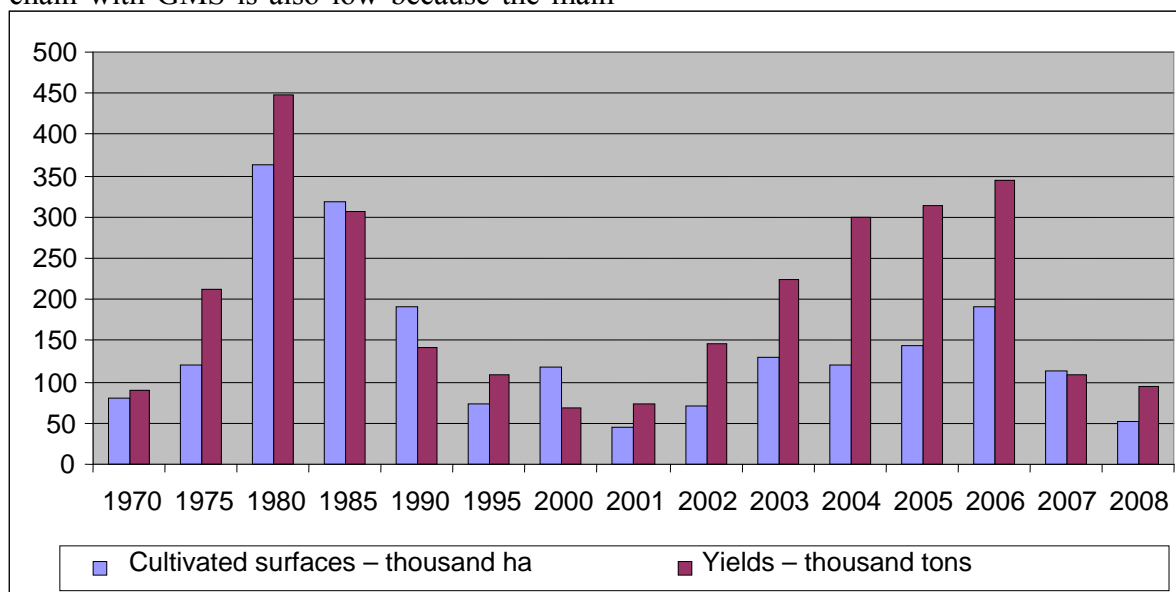


Diagram 1. The evolution of soy surfaces and productions in Romania. Source: [4] and [5]

During the socialist economy the surfaces increased from 79.1 thousand ha and 90.5 thousand tons in 1970 to 318.8 thousand ha

and 307.5 thousand tons in 1985 and even reached 512.2 thousand ha in 1989. Beginning with 1990, along with the liberation of the

economy and its orientation towards the market, the interest for the CS decreased such that between 1990 and 2002, except 1998 and 2000, the surfaces were maintained below 100,000 ha and the productions obtained were

also situated below 140,000 tons. Starting with 2002 the surfaces cultivated with soy increased constantly (diagram 2) based on the increase in interest for the GMS due to the advantages proven by this crop.

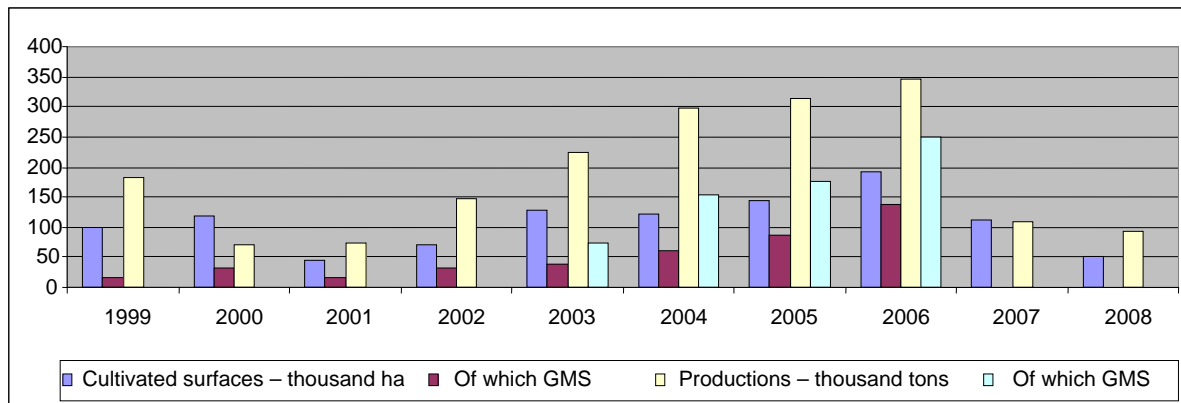


Diagram 2. The evolution of GMS surfaces and productions. Source: [5]

In repeated interventions, Lucian Buzdugan ([1] and [2]), speaks about the following advantages the farmer may obtain by calling on a GMS crop:

- Production increase up to 30%;
- Protection against problem weeds *Phragmites communis* and *Sorghum halepense* for which the degree of weed encroachment dropped by 67% and 89% in a four year cropping system with GMS;
- Total protection against one weed, *Solanum nigrum*, for which there is no soybean selective herbicide, which presents a high occurrence in the cultivation area of soybean and which produces important losses by degrading the soy beans upon harvesting;
- Reducing by 85% of weed elimination costs for the basic crop and for the following crops;
- Reducing the fuel consumption for the total cropping system due to the possibility of adopting the minimum tillage system;
- Increasing the nitrogen reserve in the soil by about 30 to 40 kg of nitrogen active substance as compared to any other crop, following the more intense activity of the symbiotic bacteria;
- Higher incomes due to the surplus in production and the quality of the beans which attract higher selling prices.

All these advantages made the GMS one of the plants cherished by the farmers. In fact, the Romanian farmers' choice was not especially for a genetically modified plant, but for an

herbicide tolerant plant, for fields free of weeds and eventually "immune" to various attacks. As such, in 2006 there were already being cultivated 190.8 thousand ha of soybean, out of which 137.3 thousand were declared GMS by the 1214 cultivating farmers in the National registry for genetically modified plants farmers' records and the production amounted 345 thousand tons, out of which 250 thousand tons of GMS (Diagram 3).

By accepting and signing, in the negotiation process of the European Union Accession Treaty, Romania is committed to uphold the European legislation in all fields, including the agricultural one. The GMS was accepted in consumption but was not authorized in cultivation in the European Union, and in order to respect the obligations assumed by signing the Accession Treaty, the GMS crop was banned and the immediate impact was the drastic decrease of the surfaces cultivated with soybean from 190,200 ha in 2006 to 52,000 ha in 2008.

The vast majority of Romanian farmers, following the GMS crop banning, gave up the soybean cultivation altogether, considering that the instituted deficiency payment system is not remunerating enough to compensate the lack of competitiveness of the conventional soybean crop. The decrease of cultivated surfaces and of the productions obtained was accompanied by the increase of soy beans and soy meal imports.

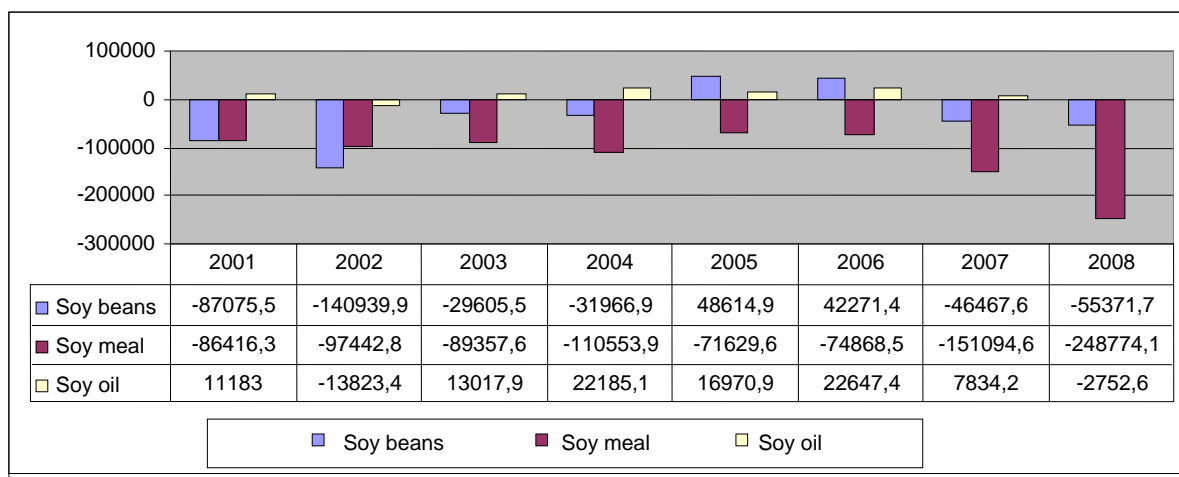


Diagram 3 The balance account of the trade in soybean and derived products, thousand tons, Source: [5]

From the analysis of the balance account of the trade in soybean and derived products in the interval 2001-2008, we notice that, except for 2002, Romania supplies itself with the necessary soy oil with a maximum surplus of 22647.4 tons in 2006 and managed to export over 42,000 tons of soy beans in 2005 and 2006 after a long period in which it was a net importer of this product. In 2008 Romania reverts to the deficit regarding soy oil, the imports being larger than exports by 2752.6 tons.

For all the analysed period, Romania is a net importer of soy meal. Between 2001 and 2004 the quantitative balance account of the trade in this product is negative and varies between 86,000 tons and 110,000 tons, decreases to a little over 70,000 tons in 2005 and 2006 and increases spectacularly in 2007 to 151,094 tons and then to 248,774.1 tons in 2008.

In value terms, the balance account of the trade in the three products is negative and in 2007 it amounts to €94.483 million, €72 million of which are due to the soy meal and €22 million to the soy beans. If we compare the years 2007 and 2006 at the level of the difference between the balance account for the trade in the three products, we notice that in 2007 the processing industry in Romania had to make supplementary foreign currency efforts amounting to €60.5 million to make up for the lack of these products, €30 million of which for soy beans, almost €20 million for the surplus of meals and about €10 million for the soy oil it did not export.

For 2008, the value deficit of the balance account of the trade in the three products is accentuated and the difference between the trade accounts in 2008 as compared to 2006 reaches €117.353 million of which €58.084 million is due to the supplementary imports of soy meal, €39.322 million for the soy beans imports and €19.947 million for the soy oil.

In real terms, the majority of this trade deficit is found as indirect loss in the farmers cultivating soybean, but especially in those who had to give up GMS.

The support system for conventional soybean

The deficiency payments granted to farmers in 2007 and 2008 for conventional soybean are of two types: the first type is related to the cultivated surface and is similar for all crops and its value amounts to €97/ha in 2007 respectively €107/ha in 2008. In the two years, the total amounts allotted for conventional soybean were of €10.98 million in 2007 and respectively €5.564 million in 2008.

The second type of support which is specific for conventional soybean is related to the obtained and marketed production is granted as a state support in order to cover the lack of competitiveness of this crop and to avoid the complete abandonment of this crop. The amounts allotted for the two years are of RON34 million in 2007 (€9.7 million) and respectively of RON30 million in 2008 (€8.3 million).

Effects on the farmers

In his interventions, Lucian Buzdugan amounts the GMS profit between €100 and

€187/ha, according to the production obtained [2]. If we accept the average value of the GMS crops profit of €143/ha, then by giving up GMS indirect potential profit losses at the farmers level are added amounting over €11.1 million in 2007 respectively €19.85 million in 2008.

The farmers' indirect losses are difficult to assess, but estimates can be made which must be interpreted subject to accepting the working hypotheses.

As such, for the lack of nitrogen resulting from the activity of the symbiotic bacteria we can estimate the level of losses at €1.1million in 2007 and €1.725 million in 2008.

The expenses on the supplementary mechanical work are of about €30/ha which means losses of €2.3 million in 2007 and €4.14 million in 2008.

The expenses on fighting weeds are difficult to estimate since they depend directly on the crop and fighting method adopted.

The total losses of farmers in the two years since the banning of GMS, amount to €14.5 million in 2007 and €24.7 million in 2008 without taking into account the losses due to increasing the expenses for fighting weeds.

Evaluating the traceability costs

In order to evaluate the costs of the authorization, monitoring and insurance system of the traceability of the GMS production, is required the identification of the supplementary activities the implementation of the GMS beans and derived products traceability insurance system imposed in 2006. The authorization system of farmers assumes that every farmer announce his intention to cultivate GMS by filing an authorization request to the county authorities in which the placement and the surface to be sowed are indicated. After receiving the authorization to cultivate and sowing the GMS the farmer lets the authorities know the effective sowed surface, if any changes regarding the authorization occurred and during the vegetation period, the farmer is monitored by the authorities, including at harvesting and the storage, transportation and production processing are also monitored.

As authorities involved in the GMS traceability, in the cultivation part, including the storage at the farmer, the responsibility is

of the Ministry of Agriculture and of its territory structures, and for the transportation, handling, storage and processing part the responsibility is of the National Sanitary Veterinarian Authority.

In 2006 there were 1214 initially authorized cultivators of GMS and 224 initially unauthorized ones, but who were further subjected to the authorization system, and they cultivated a total of 137.3 million ha of GMS with a total production of 249.9 thousand tons of GMS beans.

In order to file the authorization request and to obtain the authorization to cultivate the farmer must fill in the form and go to the county authority headquarters twice. After harvesting, he needs to go back at least one more time to file the form regarding the destination of the production. For large farmers (with farms of over 500 ha) more trips are required as every location of the GMS needs an authorization request.

The territory authorization representatives also take at least two trips to the farmer to monitor in vegetation and to follow the destination of the production.

The farmers' cost

The average cost of the farmers' trips to the authorities has been assessed at €16/farmer/trip, resulting a total of €58,272 for authorized farmers and another €10,752 for unauthorized farmers. On average, per farmer, the costs for trips to the authority's headquarters have been of €48.

The average cost of harvesting and separate storage has been assessed to €1.2/ton which induces totals supplementary costs of €299,880 the assembly of farmers paying an extra €368,904 which means average supplementary costs for a farmer of €256.53.

The authorities' cost

The cost of the authorities for management can be evaluated on the same basis at €46,016 for the trips to the farmers and €66,148 for the payment of the authorities' representatives assuming the hypothesis that for every farmer the official worked on average a day. In total, the costs of the authorities for managing the monitoring and insurance system of the GMS beans traceability have been for 2006 of €112,164.

CONCLUSIONS

1. The surfaces cultivated with soybean decreased drastically down to 52,000 hectares after the GMS has been banned, with a direct impact on the beans production and continually rising issues related to ensuring the raw material on the processing branch.

2. Romania resumes its role of net soy beans importer, the soy meal imports increased significantly in 2007 and 2008 and the supplementary foreign currency effort for 2007 is of €60.5 million and for 2008 it reaches €117.353 million.

3. The potential profit losses at the farmers level also amount 11.1 respectively €19.85 million in the two years.

4. Although the state directly supports the CS production with amounts of about €9.7 million in 2007 and €8.3 million in 2008, this support is not enough to cover the lack of competitiveness of the CS crop and does not make it attractive for farmers.

5. The farmers' indirect losses reach €3.4 million in 2007 and €5.865 million in 2008, without taking into account the supplementary efforts for fighting problem weeds.

6. The authorization, monitoring and insurance system of the traceability introduced by the Romanian authorities induces supplementary costs both for farmers and for the authorities.

7. The average cost for a farmer is of €256.53 and for all the farmers these amounts to €368,904.

8. De management costs of the authorities have been in 2006 of €112,164.

AKNOWLEDGMENTS

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MICROFINANCE - AN EFFECTIVE TOOL FOR ECONOMIC GROWTH IN THE REPUBLIC OF MOLDOVA

Mariana DOGA-MÎRZAC

State University of Moldova, Chişinău, 60 A. Mateevici, MD-2009, Republic of Moldova, Phone: +373 22 577 460, E-mail: marianamirzac@yahoo.com

Key words: *microfinance, loans, funds, credit cooperatives*

Abstract

The access to financial services is necessary for the establishment and development of enterprises of any size and in any country. It is especially difficult for low-income families that wish to start a business. Earlier, the access to microfinance services was considered irrelevant for the general development policy. Now it becomes one of the first global strategies to combat poverty, because micro-finance has a great potential to generate incomes and employment not only at the level of local communities, but also for the national economy. In many countries the base of economy is represented by small enterprises, these are small, often informally organized business structures, owned and managed mostly by people with low incomes. The impact of this economic sector on individuals, households and national economies is huge because the small enterprises are the main source of income and employment for hundreds of millions of people around the world.

INTRODUCTION

The micro financing activity occupies a special role in the financial system, however, the market of the non-banking loan in the Republic of Moldova is fairly new. Compared to the banking system, micro-financing is still an alternative source. The specific of this market is the type of the clients it serves, i.e. the small and medium businesses, these being the most exposed to the difficulty of accessing the loans. Nowadays, the non-banking loan institutions which keep the micro-financing service are represented by the Associations of the Savings and Borrowings, and the micro-financing organizations.

Micro-financing assures (MFA) the access of IMM which offer the possibility of economic development, access to goods this way solving the current needs.

Often the importance of this sector results from the existence of multiple banks that are not willing to offer loans to micro and small businesses because of the risk involved.

The priorities of the non-banking micro financing institutions as opposed to commercial banks are:

-Offering loans to applicants with no previous history

- Office placements close to the clients
 - Minimum paperwork involved
 - Increased efficiency and shorter time for loan approval
 - Offering of the un-warranted loans
 - Increased focus on the individual clients
- Taking into consideration the above mentioned reasons, we can say that the development of these institutions can have a benefic effect through their contribution to rural regions, having as a result the rest refreshed commerce, age activities, social sector, local infrastructure, and other economic activity in the social and small rural business.

MATERIAL AND METOD

For the activity analysis of micro financing organizations on the Republic of Moldova territory, the Statistics were used from the Department of the Statistics and Sociology of Republic of Moldova, National jury of financial markets which characterizes the dynamic evolution of these companies.

RESULTS AND DISCUSSIONS

Micro financing institutions formed as an alternative source of financing because the

commercial banks were not offering loans, or the approval process was too complicated for all the population segments, especially for the rural population.

First offices opened the biggest micro financing organizations with the resulting from

the offered loans: Rural Financing Corporation, Microinvest, Prime Capital, Easy Credit. Territorial coverage assures office presence in the north and south of the republic of Moldova, facilitating the access to the financial resources.

Table 1: Micro financing Organizatons' Activity (mil \$)

| Indicators | Years | Name MFA | | | | | | |
|-------------------------------|-------|-----------|-----------------------------|-------------|---------------|-------------|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | |
| | | ProCredit | Rural Financing Corpotation | Microinvest | Prime Capital | Easy Credit | Other | Total |
| Total active | 2007 | 47,4 | 23,6 | 22,7 | 13,3 | 5,3 | 45,7 | 158,1 |
| | 2008 | 51,2 | 40,5 | 41,9 | 31,1 | 9,8 | 61,8 | 236,3 |
| Loans offered | 2007 | 35,2 | 18,9 | 10,1 | 12,9 | 5,2 | 2,15 | 84,4 |
| | 2008 | 33,1 | 35,4 | 25,8 | 25,1 | 9,7 | 12,2 | 141,3 |
| Owner's Equity | 2007 | 3,0 | 4,7 | 6,5 | -0,08 | 0,7 | 0,2 | 15,2 |
| | 2008 | 3,4 | 7,5 | 9,2 | 10,9 | 2,4 | 5,6 | 39,0 |
| Bank Creditsand offered loans | 2007 | 44,1 | 17,8 | 15,9 | 12,6 | 4,1 | 2,4 | 96,9 |
| | 2008 | 47,3 | 32,3 | 32,2 | 15,0 | 6,8 | 6,7 | 140,3 |
| Net Profit | 2007 | 0,5 | 1,2 | 0,1 | 0,1 | 0,5 | -0,2 | 2,2 |
| | 2008 | -0,02 | 2,03 | 1,3 | 1,4 | 1,6 | 0,7 | 7,1 |

Surse: based on ANJFM

According to National Jury of Financial Market (ANJFM) reports regarding the micro financing organizations' activities, an increase of number of firms offering micro financing from 24 in 2008 to 32 in 2009.

According to newly registered firms: Iute Credit, Credit Rapid, First Financing Group, Alfa Partners, Visreal Prim, Prime Capital 2, Creditera, etc, the foreign investment is prevailing.

According to the most important indicators of the micro financing, Table 2, lets us analyze their activity.

Table 2. Indicators regarding the activity of micro financing organizations(mil \$)

| Nr. | Indicators | 2007 | 2008 | % change 2008/2007 |
|-----|------------------------------|--------|--------|--------------------|
| 1. | Total active | 158,06 | 236,27 | 149,0 |
| 2. | Offered loans | 84,43 | 141,27 | 167,0 |
| 3. | Owner's Equity | 15,16 | 39,0 | 257,0 |
| 4. | Bank loans and offered loans | 96,97 | 140,33 | 144,0 |
| 5. | Net profit | 2,15 | 7,10 | 330,0 |

Source: developed by the author based on ANJFM

The evaluation of the events from the financial market shows the continuation of the raising trend in the micro financing activity. The consolidated value of micro financing

organizations in 2008 constituted 236.27 mil \$, showing a 49% increase compared to the previous year. The loan portfolio constituted 141.27 mil \$, showing a 67% compared to the 2007. The growing rate of the loan portfolio is greater than the growth rate of actives value portfolio. This is due to the increased number of loans offered in the total value of micro financing actives registered in 2008, compared to the value of the previous year.

The evolution of the Owner's equity and financial resources value are positive. Substitution of financial resources have been realized through capital increase as well as loans and credit lines increase. The Owner's equity increased from 15.16 mil \$ in 2007 to 39 mil \$ in 2008. The gain also increased by 4.95 mil \$ compared to the previous year.

The evolution of micro financing organizations in 2010 will be correlated to the financial and capital market developments. If the 2009 situation characterized by the lack of liquidity and more strict loan conditions, which in turn will increase the interest rates and the profit will continue on the upper trend. This will happen only if the consumption, export and import will remain constant.

CONCLUSIONS

Even if in the past years the size and the number of the loans offered to different sectors of the economy increased, this increase is still insufficient for the accelerated launch of the economy. Comparing the Republic of Moldova parameters with the ones from other countries, it is obvious that the government authorities as well as those monetary and financial have to implement efficient measures towards the increase the volume of the investment loans.

The following measured can be proposed:

1. Strategy elaboration for the long term loaning system, based on the country's objectives and real needs. The elaboration should be based on the collaboration of all the state organs, loan institutions, donation institutions, and all other institutions that have to do with loans, as well as the scientific institutions.
2. Increased state contributions for consolidation and development of the loan system: state capital bank creation and long term loans support
3. Polishing norms and judiciary frame which affects the organization and constitution of a fund regarding the savings of the Savings and Loans

Associations with the scope of maintaining the liquidity and solvability.

4. Consolidation of the micro financing institutions system in the following directions: diversification of the insurance companies activity with a wide array of services for the members of associations using international insurance practices
5. Elaboration of a viable concept for internal control and external audit at micro financing and creation of specialized institutions which would conduct the external control of the associations, this way contributing to the mistakes prevention
6. Transparency of the transactions for non banking loans institutions

The partial or integral application of the above proposed solutions, would contribute to loan system development which could have a beneficial effect on increasing local production, improvement of the external commercial relations, lowering unemployment rate and increasing the population's quality of life. However, the biggest impact would be the positive influence of social and commercial, industrial and other entourage.

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FACILITIES OF USING LINEAR PROGRAMING FOR STRUCTURE OPTIMIZATION OF THE AGRICULTURAL HOLDINGS ACTIVITIES

Manea DRĂGHICI, Livia DAVID, Valentina TUDOR

University of Agriculture and Veterinary Medicine-Bucharest, 59, Mărăști, 011464, district 1, Bucharest, Romania, phone/fax +4021.3180465, Email: maneadraghici@hotmail.com

Key words: linear programming, optimization, efficiency, profit

Abstract

Mathematical programming models and especially their subclass - linear programming models - plays an extremely important role both in economic theory and in practice. Their use has advantages for optimizing the size of the agricultural holdings. In practice the use of these models seems hard, especially by calculating and including in the model the coefficients that characterize the objective function, activities and free time. This paper presents research regarding the automatic generation of the technical and economic coefficients matrix through the product-program AGR-4, interactive data entry that characterize the model by product-program Procsms_simplex and the interpretation of the prime-dual solution through the product-program Simplex..

INTRODUCTION

The economic size of agricultural holdings is given by the optimal combination of inputs for each product and the minimum level of production costs which could achieve the highest profits. Optimization of production requires knowledge of what factors determine their role and influence over the results [3]. Concentration and specialization of agricultural production, are leading to an increased size of the agricultural industry. Even if you have a specialized production structure, size and proportions of the branches and agricultural exploitations activities determined in shaping their economic size. Forming the economic dimensions of the agricultural holdings is one of the most important structural problems in agriculture.

MATERIAL AND METHOD

Determining the size of agricultural holdings activities can be done through various methods such as the method of logical alternatives, planning method, linear programming method. The progress in the technical domain registered by the linear programming method is used for the size optimization and agricultural holdings activities structure. Linear programming is presented in the following form [1]

$$\begin{cases} (\max) \text{ sau } (\min) f(x_1, x_2, \dots, x_n) & 1.1 \\ g_i(x_1, x_2, \dots, x_n) \leq b_i \quad i=1, \dots, n & 1.2 \\ x_1, x_2, \dots, x_n \in \Omega \subseteq R^n & 1.3 \end{cases}$$

Function (1.1) is called the objective function of the optimization problem. In the economic applications, it is the criterion of performance: profit maximization, commodity production maximization, production costs minimization, maximizing the level of loading of the stationary equipment or minimizing their time, maximizing revenue, etc. Functions $f, g_i : R^n \rightarrow R$ can have any shape and properties (linear, convex, continuous, differentiable, etc.) and Ω can be any subset of the R^n (continuous or discrete, bounded or unbounded, convex or not-convex, finite or infinite etc..) and we want to find the minimum or the maximum of the function f in the variables x_i which satisfy the restrictions 1.2 and 1.3. Inequalities (1.2), where g_i is functions of n variables and b_i are constants, are called restriction of the optimization problem. They translate into mathematical language the economic or technological conditions where the economic process is shaped, such as: not exceeding the available resources (areas, production capacity, labor, money funds, time, etc.), or exceeding the economic performance indicators (physical, net production), etc. Conditions (1.3), imposed "directly" to the variables, depending on the nature of the studied problem. Most of the times Ω is the

multitude of vectors $x = (x_1, \dots, x_n) \in R^n$ with all the nonnegative components and this is justified by the fact that, in general, x_i represents the "levels" of some production activities, levels that can not be negative. By solving the model is obtained an optimal solution to the optimization problem which is a vector $x \in R^n$ and verifies the restrictions 1.2 and 1.3 and optimize the objective function on the set of all vectors with this property.

RESULTS AND DISCUSSIONS

The research aims: 1. The automatic generation of the economic and technical coefficients

matrix (MCTE); 2. The interactive expanding of some activities and of the economic and technical restrictions and 3. The primal-dual interpretation of the solution obtained.

1. The automatic generation of the economic and technical coefficients matrix.

For MCTE generation of agricultural holdings size optimization is used the Product-Program AGR-4 [2]. This Product-program has produces a database with records of major technological culture that can be updated in function of technical and economic conditions of each agricultural holdings.

Table no. 1. The contents of the original and interactive files

| Activities | Wheat | Barley | Corn for consumption | Soya | Beans | Pb silage | Lucerne m.v. | Sugar Beet | Sunflower | Agrotl | OR | TL |
|------------|-------|--------|----------------------|---------|-------|-----------|--------------|------------|-----------|--------|----|------|
| F OB NR 1 | 568,8 | 199,6 | 344,7 | 664,2 | 683,6 | 277,5 | 138,1 | 250,0 | 671,5 | 5200,0 | | |
| ZNMEC 3 | 0,059 | 0 | 0,012 | 0 | 0,073 | 0,069 | 0,069 | 0,771 | 0,027 | 0 | < | 22 |
| ZNMEC 4 | 0,35 | 0 | 0,009 | 0 | 0,04 | 0,294 | 0,118 | 0 | 0,37 | 0 | < | 22 |
| ZNMEC 5 | 0,22 | 0,04 | 0 | 0,038 | 0,038 | 0,155 | 0,212 | 0 | 0,196 | 0 | < | 22 |
| ZNMEC 6 | 0,06 | 0,06 | 0,00 | 0,00 | 0,00 | 0,06 | 0,06 | 0,00 | 0,00 | 0 | < | 22 |
| ZNMEC 7 | 0,434 | 0 | 0,25 | 0 | 0,638 | 0 | 0,809 | 0 | 0 | 0 | < | 22 |
| ZNMEC 8 | 0 | 0 | files | initial | | | 0,617 | 0 | 0,033 | 0 | < | 22 |
| ZNMEC 9 | 0 | 0,637 | 0 | 0,598 | 0 | 0 | 0 | 0,923 | 0,25 | 0 | < | 22 |
| ZNMEC10 | 0 | 0 | 0 | 0 | 0 | 0,865 | 0 | 0,923 | 0 | 0 | < | 22 |
| ZNMEC11 | 0 | 0 | 0 | 0,333 | 0 | 0 | 0 | 0 | 0 | 0 | < | 22 |
| AZOTH | 0 | 0 | 300 | 0 | 200 | 100 | 0 | 0 | 0 | 0 | < | 7000 |
| PHOSPHOR | 0,5 | 0 | 0 | 0 | 0 | 0 | 0 | 0,55 | 0 | 0 | < | 6000 |
| CONSPOTA | 0 | 0 | 0 | 0 | 0 | 200 | 200 | 0 | 100 | 0 | < | 4500 |
| RTOTMAN | 795 | 38 | 73 | 158 | 27 | 82 | 87 | 960 | 46 | 600 | < | 5500 |
| RTOTMEC | 36 | 40 | 41 | 49 | 25 | 44 | 68 | 91 | 32 | 600 | < | 4200 |
| Suptot | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | < | 30 |
| Fls | 0 | 0 | 0 | Files | inte | activ | 0 | 0 | 1 | 0 | < | 8 |
| Beans | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | < | 2 |

Generating an initial file which is the basis for MCTE involves the following steps: selecting possible activities for agricultural holdings, technology verification records for crops that will enter the model (works, rules, production, prices), calculating technological records, display and appreciation of technical and economical indicators and eventually their correction. With these activities is made an initial file with the extension txt (ex. AG1.txt). From Table 1 we see that the activities are included, the unit contribution (profit) of each

activity, the monthly consumption of mechanical labor expressed as ZN, some consumption of materials and money. The manual ZN consumptions per month and water for irrigation were removed from the table in order to simplify the model presentation.

2. Interactive expanding of the economical and technical restrictions

For the interactive expanding of the table AG1.txt in order to finalize the model, is used Product-program Procsms_simplex comprising the following steps: automatic drawing of a

matrix number of columns equal to the number of crops introduced and the number of rows (constraints) variable, depending on the needs of ZN manual, ZN mechanical and water requirements needed for each month, of each culture, adding activities (columns); introduction of the relational operators (<, = or>), placing values on free time (resources), adding lines respectively rotational agro technical restrictions and also market restrictions (not to produce more than... tons, etc.).

In the matrix from Table 1 were added: Agrot1 activity (number of rooms of the agrotouristic house), restriction total area in correspondence with the agricultural holdings

surface, restriction on the maximum area that can be planted with sunflower and restrictions on the maximum beans surface.

Relational operators have been introduced and the free term of the matrix, respectively the area's available resources. Interactive additions are represented in italics in Table 1.

Thus, was completed the full preparation of the linear programming model for optimizing the size of agricultural holdings activities.

3. The primal-dual interpretation of the obtained solution. Once completely finished, MCTE file is recorded with a txt extension, ex. AG1a, after which the model will be taken in order to be resolved by the SIMPLEX program.

Table no. 2. The primal-dual solution
 PRIMAL VARIABLES :

| Variable: | Name: | Size: | Value | Aport |
|--------------------|---------------|-------|---------|----------|
| (Ha) in Func. Ob.: | at Func. Ob.: | | | |
| X 3 | Corn cons | 7.91 | 344.69 | 2725.08 |
| X 4 | Soya | 17.09 | 664.18 | 11353.57 |
| X 5 | Beans | 2.00 | 683.55 | 1367.10 |
| X 9 | Sunflower | 8.00 | 671.53 | 5372.24 |
| X 10 | Agrot1 (no) | 3.00 | 5200.00 | 15600.00 |

VARIABLE DUALE:

| Variable: | Name: | Value | Quantity | Marginal | APOINT |
|-----------|--------------|----------|----------|----------|--------|
| L 13 | RTOTMAN lei | 3.758706 | 5500 | 20672.88 | |
| L 15 | suptot ha | 70.30449 | 35 | 2460.657 | |
| L 16 | fls ha | 428.3251 | 8 | 3426.601 | |
| L 17 | beans ha | 511.7605 | 2 | 1023.521 | |
| L 18 | No. rooms no | 2944.777 | 3 | 8834.33 | |

| |
|------------------------------------|
| OBJECTIV FUNCTION VALUE = 36417.99 |
|------------------------------------|

The display will show first-dual optimal solution to optimize the crop structures for resources that are contained in free time (Table no 2).

The primal solution gives the dimension of each activity, areas that will be occupied by each crop and number of rooms in agrotourism. The dual solution gives us the marginal contribution (dual) of all resources consumed.

The objective function value of 36,417.99 lei result from the primal solution as a result of the contribution to the objective function of each activity or as a result of the marginal

contribution of each resource consumed entirely from the dual solution.

CONCLUSIONS

1. The product-program AGR-4 allows time reducing in order to establish an optimization of a model to scale activities. At the same time increases the accuracy of registration data because the calculated data are recorded directly in the model without the need for intermediate copying.
2. Product-program Procsms_simplex of interactive completing of some activities

(columns) and restrictions (lines) from the linear programming model makes possible to avoid errors and increase the security of data entered.

3. Researches will continue through interactive parameterization of resources (free time) and injection activities in the objective function to determine the size and farm activities and agricultural exploitation.

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STRUCTURES AND POTENTIALITIES IN DIVERSIFYING OF THE LABOR FORCE AND WAGES WITHIN AGRICULTURAL UNITS IN TELEORMAN COUNTY

Manea DRĂGHICI¹, Florică MARA¹

¹University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59, Mărăști Blvd., Bucharest, Romania, Email: draghici manea@hotmail.com

Key words: structure of production, agricultural used area, livestock, production, yields

Abstract

The present writing highlights some of the main aspect concerning the role and implications of labor force in the diversity of activities within the rural space of Teleorman County. Through the specific methodologies of the elasticity coefficients, the present situation is show and also the influence factors materialized through the volume of the demographic movement, number of people/employees/workers, net wage in agriculture and rural population movement. The tendencies result from the influence directions towards settlement of the rural population. Seeing as the production agricultural sector can no longer absorb labor force in a proportion which can balance the labor market in Teleorman County, diversifying activities represents a form of solving this present situation.

INTRODUCTION

In the present writing we began from the dividing form of the rural space, through which according to favorability/restrictiveness natural habitat conditions, are actually divided the areas and regions with favorable elements or with natural risks involving development of the human habitat.

The politics for establishment of the technical and economic instruments for regulating the market in the case of Teleorman County have been materialized through physical indicators, which referred to labor resources¹. The indicators have been structures according the understanding of the necessity for action of the demographic phenomenon in the analyzed rural space, through: active population, population with age of labor, occupied population, wages, etc.

MATERIAL AND METHOD

We also used the method based on use of *elasticity coefficients*, which in this case represented a proportion between the relative modification of a considered to be dependent factor and the changing of the factors by which it is conditioned. In the case of such studies, the phenomenon considered as the effect (y) is

represented y the rural population, and the phenomenon considered as change of cause (x), can e presented by influence factors, materialized through the influence of the demographic movement volume, number of people/ employees/ workers, net agricultural wage. The calculation of the elasticity coefficient (E) is:

$$E = \frac{\Delta y}{y} : \frac{\Delta x}{x}$$

The significance of the notations is the following:

Δy - represents the absolute growth of the quantifiable dimension of the effect phenomenon;

Δx - the absolute growth of the quantifiable dimension of the cause phenomenon;

x, y - the base comparison level of the quantifiable dimensions for both effect and cause phenomenon

In order to form a comprehensive picture in the sphere of the activities for the studies agricultural units, it is necessary the calculation of the elasticity coefficient in constant base (E), chain base (E') or by constantly maintaining a specific sub-period considered as significant in the dynamics of the analyzed phenomenon (E''). The results of the calculations create the possibility of

analyzing and interpreting of indicators in the yearly dynamic structure.

RESULTS AND DISCUSSION

Labor force and its mobility within Teleorman County.

Situated in the southern part of the country, in the middle of the Campia Romana, Teleorman County has a surface of 5.790 km², representing 2,4% of the country's surface. The territory of the county meets very good soil and climate conditions for practicing agriculture, regarding irrigation systems. The agricultural and climatic resources are very

good for grain, corn, soy and tobacco crops and less favorable for potatoes, beans, hemp, flax and other drought sensitive plants.

As an administrative unit, the Teleorman county surrounds 92 villages, which represents 3,22% of the national total. The population of the county represented by 276.424 inhabitants is 2,85% of the total population of the country. We can observe a growing rate of aging for the population in this county. According to the information in *table 1*, a decrease of -7,9% in the population is noticed (from 299,890 inhabitants in 2000 to 276,199 inhabitants in 2005).

Table 1. Population and its movement in the rural area in Teleorman County

| Structure of the indicators | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--|---------|-------|-------|-------|-------|-------|-------|
| POPULATION IN THE RURAL AREA (% thousand people) | | | | | | | |
| Total population in the rural area | 299.890 | 99 | 97,4 | 95,9 | 95 | 93,5 | 92,1 |
| Population occupied in agriculture | 125.700 | 97,6 | 85,2 | 81,4 | 74,3 | 75,3 | 70,5 |
| MIGRATION MOVEMENT OF RURAL POPULATION (%/number) | | | | | | | |
| Settlements (arrivals) in the rural area | 4076 | 87,2 | 98 | 87,7 | 110 | 70,5 | 95,2 |
| Departures from the rural area | 2389 | 142,6 | 142,9 | 148,4 | 176,5 | 130,3 | 161,6 |

Source: Personal processing according to the data base in the Yearly Statistic Register of Teleorman County, 2007, INS, DJS-Teleorman

From this it results in the need to acknowledge the influence of demographic movements towards rural population. Use of elasticity coefficients with constant base (year 2000), chain base (in comparison to the previous year) and by maintaining the constant of year 2004 (in comparison to the year with the highest level of arrivals/departures), given in *table 2*, we can highlight the following:

- *the influence of settlements in the rural area (x) towards the rural population (y) between 2000-2006*, through the three forms of the elasticity coefficients (E, E', E''), highlights the following aspects: for the constant base of year 2000 (E), in 2002 and 2006, through values $E < 1$, for 2001, 2003 and 2005, a lack of influence is indicated, and in 2002 and 2006 through $E > 1$ we notice a correlation; for chain base (E'), half of the years in the analyzed period register sub-unitary values ($E' < 1$), which indicated lack of correlation, the other half of the years indicating an inverted correlation ($E'' < 0$); for a comparison basis of year 2004, the

elasticity coefficients represent an inverted correlation in the first part of the analyzed period (2005 and 2006). From all this we can understand that the influence factor of inhabitant settlements in the rural area has no influence, or has an inverted influence over the rural population, due to the low number of arrivals to the rural;

- by continuing to analyze the *influence of departures from the rural (x) towards the rural population (y)*, we notice that for the three elasticity forms (E, E', E'') and for most of the years, the values are negative, a significant form of inverted elasticity. In such a situation, we can say that amplifying of departures from the rural, influences in an inverted way, the decrease in rural population in Teleorman County.

The tendencies, most with negative and sub-unitary values, confirm a weak influence of settlement for the rural population, next to migration tendencies of the rural population in the county. This situation is registered due to

the fact that settlement of the population in most years in the analyzed period is lower than the departures, and also due to constant correlations in the previous tables.

From all this it results that in Teleorman County, at present time, an involution process

Table 2. The elasticity shown by the influence of rural demographic movement (x) towards the rural population (y) in Teleorman County.

| Year | Influence of settlements in the rural area (x) towards the rural population (y) | | | Influence of the departures from the rural area (x) towards the rural population (y) | | |
|------|---|-------|-------|--|-------|-------|
| | E | E' | E'' | E | E' | E'' |
| 2000 | 0 | 0 | -0,57 | 0 | 0 | -0,12 |
| 2001 | 0,07 | 0,07 | -0,2 | -0,02 | -0,02 | -0,22 |
| 2002 | 1,32 | -0,13 | -0,2 | -0,05 | -7,1 | -0,13 |
| 2003 | 0,32 | 0,14 | -0,05 | -0,08 | -0,38 | -0,06 |
| 2004 | -0,49 | -0,03 | 0 | -0,06 | -0,05 | 0 |
| 2005 | 0,22 | 0,04 | -0,04 | -0,21 | 0,06 | 0,06 |
| 2006 | 1,65 | -0,04 | 0,22 | -0,12 | -0,05 | 0,35 |

* year 2004 registered the highest number of settlements (arrivals) in the rural area of the county (referred to in the form of E'')

The occupation structure of labor in agriculture within Teleorman County

Considering the importance of the economical dimension of the activities taking place in the rural for Teleorman and its durability, the interest for occupying labor force, becomes of strategic importance. For this reason, the existing rural activities, at a low level at this specific stage, but still with great human potential, must be oriented towards a specific structural form.

From this point of view, diversifying of rural economy is a necessity for the rural area of Teleorman, for which reason it becomes compulsory that there exists knowledge of the present labor force structure, among with wages.

Therefore, it was concluded that these agricultural wages, which have permanently been inferior to those at county level, have also determined the unfavorable balance in migration of the rural population. These situations have been continuously analyzed through elasticity coefficients, and searched for knowledge of the effects that the number of people/employees/workers in agriculture (x) have over the rural population (y). In *table 3* these elasticity coefficients (E, E', E''), are presented, and which analyzed within the dynamics of 2000-2006 show the following:

takes place due to: the great attraction of the population towards the capital city, low degree of urbanizing in the county, a low traditional birth rate.

- by observing the influence I the number of employees in agriculture (x) over the rural population (y) for constant comparison base for year 2000 (E), we notice an inverted influence in the first part of the period ($E < 0$) and a direct influence in the second part of the period ($E > 1$). The same influences and interpretations are noticed for the results of the elasticity coefficient with chain base (E'). Comparison base for 2006 with the lowest rural population number (E''), frames sub-unitary values for most of the years ($E'' < 1$), this resulting in lack of influence of the number of employees in agriculture over the total rural population.

- the influence of the number of workers in agriculture (x) over the total population in the rural area (y), for the constant base of year 2000 (E) represents an inverted influence in the first period ($E < 0$), after which in the second period it resulted in a direct elasticity ($E > 1$). For comparison of the elasticity coefficients with chain base (E'), and maintaining the comparison of the year 2006 (E''), mostly sub-unitary values ($E' < 1$, $E'' < 1$), represent a lack of elasticity, therefore, the number of workers in agriculture does not influence the total rural population;

- the elasticity coefficients resulted from the influence of the population occupied in agriculture (x) over the total population in the rural area (y), represents for most of the three

forms (E, E', E''), sub-unitary results ($E < 1, E' < 1, E'' < 1$). From this it results that at the level of Teleorman County, the variations in population occupied in agriculture, could no longer influence the total population of the rural area.

Table 3. The elasticity shown by the people/employees/workers in agriculture (x) over the rural population (y) In Teleorman County.

| Year | Influence of the number of employees in agriculture (x) over the rural population (y) | | | Influence of the number of workers in agriculture (x) over the rural population (y) | | | Influence of the population occupied in agriculture (x) over the total population in the rural area (y) | | |
|------|---|-------|------|---|-------|------|---|-------|------|
| | E | E' | E'' | E | E' | E'' | E | E' | E'' |
| 2000 | 0 | 0 | 0,54 | 0 | 0 | 0,66 | 0 | 0 | 0,2 |
| 2001 | 0,09 | 0,09 | 1,56 | 0,63 | 0,63 | 0,67 | 0,39 | 0,39 | 0,19 |
| 2002 | | | | | | | | | |
| 2003 | -0,41 | -0,09 | 0,25 | -0,21 | -0,12 | 0,21 | 0,17 | 0,13 | 0,27 |
| 2004 | -0,54 | -1,25 | 0,17 | -2,73 | 0,16 | 0,28 | 0,21 | 0,33 | 0,26 |
| 2005 | 1,96 | 0,1 | 0,24 | 1,51 | 0,21 | 0,34 | 0,19 | 0,11 | 0,58 |
| 2006 | 1,79 | 1,44 | 0,12 | 1,43 | 1,26 | 0,18 | 0,26 | -1,13 | 0,21 |

* year 2006 registered the lowest number of rural population (referred to in the form of E'')

The wages, quality element for fundamental of rural labor force in Teleorman County

The wages represent the dynamic element for occupying labor force in any activity. In the case of Teleorman County, this dynamic element represents the existence of employee number, which is later justified through wage. Especially referring to the employees in agriculture, and afferent wages, knowledge of factors which operate over the level of these wages is needed. What would be interesting is the comparison level of these wages as opposed to the total in the county and opposed to national economy.

In the analysis made, the quantity side of the human reaction factor towards remuneration was highlighted. The dynamics studied for the period 2000-2006 imposed knowledge of both time and annual sequences, by a simultaneous comparison. For highlighting this, we determined elasticity coefficients with constant base (E), chain base (E'), and by maintaining as comparison base, year 2006, which registered the highest level of net agricultural wage in the county (E''). According to those mentioned before, the structure of this elasticity coefficient analysis in table 4 showed a successive influence of the wage over rural population and the number of

By looking at the whole situation, it results in growing use of labor force in the production agricultural sector of Teleorman County and this can no longer influence, or has a minor influence over the total rural population.

employees in agriculture; the following resulted:

- the influence of net agricultural wage (x) over rural population (y), shows for all of the three elasticity forms (E, E', E'') a negative level for the elasticity coefficient ($E < 0, E' < 0, E'' < 0$). This represents the fact that the increase in net agricultural wage determines a decrease in rural population;
- in the case of the influence of net wage (x) over number of employees in agriculture (y), the results given from determining the same elasticity coefficients (E, E', E''), creates two situations. **a)** the situation of the elasticity coefficients for constant base for year 2000 (E) and chain base (E'), for which there is a lack of elasticity in 2002 and 2003 ($0 < E < 1$ și $0 < E' < 1$). Therefore, the number of employees in agriculture does not depend on wage. **b)** The situation given by the negative level of the elasticity coefficients in the case of comparison base of the year 2006, when it shows an inverted elasticity ($E'' < 0$). The comparison base of the year 2006 represents the maximum wage, and the negative values through the swinging tendencies of the coefficient vary between -0,08 and -0,63, representing an inverted influence (growth of wage determines a decrease in the number of employees in agriculture).

The situation shown by both comparison forms is determined by the fact that the wage growth rhythm is inferior to that at county level or national economy. In this case a strong

migration flux is maintained, for departure of rural population from the county, among with a tendency of decrease in the number of agriculture employees.

Table 4. The influence of net wage (x) over rural population/number of employees (y) in Teleorman County.

| Year | The influence of net wage (x) over rural population (y) | | | The influence of net wage (x) over number of employees in agriculture (y) | | |
|------|---|-------|-------|---|-------|-------|
| | E | E' | E'' | E | E' | E'' |
| 2000 | 0 | 0 | -0,11 | 0 | 0 | -0,02 |
| 2001 | -0,01 | -0,01 | -0,13 | -0,17 | -0,17 | -0,08 |
| 2002 | -0,03 | -0,15 | -0,11 | 0,08 | 1,63 | -0,45 |
| 2003 | -0,03 | -0,06 | -0,1 | 0,06 | 0,04 | -63 |
| 2004 | -0,02 | -0,03 | -0,15 | -0,01 | -0,31 | -0,63 |
| 2005 | -0,04 | 0,28 | -0,05 | -0,02 | 0,2 | -0,47 |
| 2006 | -0,03 | -0,04 | 0 | -0,05 | -0,31 | 0 |

* year 2006 registered the highest level of net agricultural wage in the county (referred to in the form of E'')

CONCLUSIONS

Seeing as the political and social factors interfere with the use of labor force, especially in the rural, through a complex development, specific objectives and use of personal means are distinguished, in order to be reached. In this context, it is important to integrate labor force into the diversity forms of rural activities.

The rural space in Teleorman, in comparison to the national level, is by far the most important, from the point of view of the population and also from that of the area. The general presentation of the county highlights both climate and soil conditions, considered to be very good for practicing agriculture. The presence of weak diversification in rural activities, among with low level of wages in agriculture, result as the real causes of the negative migration balance of the rural population. In Teleorman County there is still an involution process due to: the great attraction of the population towards the capital city, low degree of urbanizing in the county, a low traditional birth rate.

The major consequences of this situation in Teleorman county, were shown by two primal fields: *demographic field* (decrease and migration of the rural population, which led to a strong decrease in total human capital); *economical field* (which generated effects known by under-production of the family farm, problems in accessing the market, low agricultural product prices, a decrease, even

stumbling of diversity between village farms, etc.)

The tendencies, most with negative and sub-unitary values, confirm a weak influence of settlement for the rural population, among with migration tendencies of the rural population in the county.

By looking at the whole situation, it results in growing use of labor force in the production agricultural sector of Teleorman County and this can no longer influence, or has a minor influence over the total rural population.

The situation shown by both comparison forms is determined by the fact that the wage growth rhythm is inferior to that at county level or national economy. In this case a strong migration flux is maintained, for departure of rural population from the county, among with a tendency of decrease in the number of agriculture employees.

The economical, political, social and territorial reality shows that the repercussions are delivered by the presence of an unfavorable balance in movement of the rural population from the county. Seeing as the production agricultural sector can no longer absorb labor force in a proportion which can balance the labor market in Teleorman County, diversifying activities represents a form of solving this present situation.

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AUDIT OF THE EUROPEAN IMPACT ON GLOBAL CLIMATE CHANGE

Sabina FUNAR, Claudia IONESCU

Romanian Court of Accounts, 22-24 Lev Tolstoi, Sector 1, 011948 Bucharest, ROMANIA, Phone: +40 21 307 8861, Fax: +40 21 307 8878, E-mail: sfunar@yahoo.com, clau_ionescu2005@yahoo.com

Key words: *audit of environmental programs, global climate change, regional strategies, platform for information exchange, adaptation to climate change*

Abstract

The paper summarizes the main guidelines necessary to develop regional strategies for adapting to climate change: reviewing existing strategies, guiding the process of adaptation for the development and regional implementation, providing financial support, assistance, providing advice and policy integration at the European level. The analysis focuses on the contribution of audit institutions in support of the European program on global climate change. The basic proposal of the work aimed at creating a pan European platform for exchange of information between governments, agencies and organizations working to adapt policies concerning the risks induced by climate change, the impacts and the best practices.

INTRODUCTION

Between 7 to 18 December 2009, the 15-th session of the United Nations Framework Convention on Climate Change (COP 15) was held in Denmark, Copenhagen.

To determine the position of the European Union (EU) for the Conference, the Council of Europe (CE) has adopted the basic conclusions for negotiating an international agreement on climate protection, to take effect immediately after the Kyoto Protocol expiration. Following, we list some of the most important.

1. Preventing climate change calls for economic and social development through concerted and sustained efforts permitted by the regulatory framework of UNFCCC (*United Nations Framework Convention on Climate Change*). It is essential to focus on increased alliances and on the development of partnerships with developing countries, for the achievement of mutual benefits between developed and developing countries in the efforts to combat climate change and ensure the future security of biodiversity and eco-systems .

2. The Council of Europe stressed the importance of the *recognition of key objectives on climate and energy*: such as maintaining under 2° C the level of global warming and the reduction of at least with 50% of the global

emissions by 2050, and in the developed countries, with 80% or more.

3. CE also emphasized the potential importance of agricultural activities on *poverty reduction, food security over long-term and, in this context, on the creation of a framework for adaptation*.

4. Of particular importance are the decisions concerning the integration of different policies and sustainable strategies for adapting to all levels and in all actions of cooperation and the public funding and development of specific structures in conjunction with various circumstances and priorities.

5. Regarding the regulatory framework necessary to strengthen the European climate change adaptation, we mention some basic requirements:

- consistency and correlation between programs, institutions and international stakeholders, regional and national implementing adaptation policies, models of assessment and risk management and other related activities;
- adequate financial support is essential to implement a comprehensive and coherent working framework to support the Copenhagen agreement on the basis of appropriate contributions from participating States;
- establish an integration entity to provide for a consolidated picture of the sources of international financing for investments related to climate change, to revise the balance of the

international distribution of public finances by priority, to include relevant actors to assist in this area and ensure synergy with other environmental agreements;

- implementation of the EU strategy for disaster risk reduction in developing countries;
- efforts to exploit synergies between the various international conventions to cooperate and integrate the effects of the climate change in the sense of the agreement in Copenhagen;
- develop comprehensive frameworks for climate services, in order to continue to expand cooperation in scientific research and systematic observation, and to develop and transfer technology and knowledge of adaptation actions, including regional climate scenarios for providing quality climate services;
- integrating adaptation into national planning, development of a knowledge base for adaptation, capitalizing experiences in areas supported by pilot projects, and monitoring, review and support adaptation actions, which involve information sharing among stakeholders.

With the implementation of the Copenhagen agreement, Member States have pledged to contribute an annual grant of 2.4 billion EUR for the years 2010 to 2012. UNFCCC Secretariat has estimated that, by 2030, the total costs of adaptation for developing countries will reach between 23 and 54 billion EUR per year. Meeting these requirements will be subject to continuous monitoring by the EC and regular review of the audit institutions of Europe.

2. AN AUDIT PERSPECTIVE ON THE EUROPEAN REGULATORY AND INSTITUTIONAL FRAMEWORK FOR ADAPTATION TO CLIMATE CHANGE

One of the major objectives of the Council of Europe (CE) regarding the implementation of environmental programs is reforming the system of environmental governance.

In this context, in April 2009, the European Commission has developed and presented the document *The White Paper on climate change adaptation* which proposes a framework of the European Union on the adaptation constraints imposed by the climate change and reduce the impact through concerted action of Member States, targeted to increase adaptability and to

minimize impacts of climate change, through measures applied at national, regional or local levels.

CE objectives arising from this document are:

1. Building a European framework for climate change adaptation;
2. Policy and the working frame for adaptation measures to reduce vulnerabilities of EU to the impact of climate change;
3. Creating a pan European platform dedicated to the exchange of information between governments, agencies and organizations working to develop adaptation policies concerning the risks induced by climate change, impacts and best practices;
4. Adaptation measures for the implementation of policies at national and regional level, according to natural relief and the associated specific vulnerabilities;
5. Emphasizing the role of EU in terms of: providing financial support, assistance, providing advice and policy integration at European level.

2.1 Key elements of the EU framework on adaptation to climate change

The key elements of the EU framework on adaptation to climate change, arising from the review of the European approaches are:

1. Improving the knowledge base available at the European level, on the observed phenomena that provide information about the impact of climate change across Europe. With all the measures taken so far, one can note that there are weaknesses concerning the provision of information from different regions and in the monitoring of environmental programs, the lack of scenarios reflecting the impact of climate change and the different awareness at the European level, of the socio-economic issues as well as the lack of cost-benefit analysis of various adaptation options, and insufficient information on best practices. Agriculture could be the first beneficiary of this knowledge base.
2. Reflecting the impact of climate change in key EU policies. Currently, there are many sectors with major involvement in the European policies concerning the climate risks and the adaptation measures to reduce long term vulnerability of sectors such as agriculture, forests, biodiversity, fisheries, energy, transport, water and health.

This means using or creating mechanisms to allow decision makers to integrate climate risks in all relevant policy interventions.

3. Financing, involving various policy measures to achieve the best effect. Financial constraints constitute one of the main barriers for the adaptation to climate change, as reflected by the priorities of the current EU multiannual financial framework (2007-2013). Funds available, along with other financial services provided, and additional revenues generated through tax mechanisms (tax shifting) must reflect this priority.

4. International efforts to support adaptation to climate change. To remove the adverse effects already produced in some areas outside the EU, imposes EU cooperation in support of adjustment programs, particularly through financial assistance programs in relevant sectors. From the perspective of auditing, the European framework has a phase-oriented approach: (a) the implementation of four key elements (2009-2012) which will lead to developing a coherent EU adjustment strategy and (b) the implementation of the strategy (starting with 2012). This approach requires cooperation between EU, national, regional and local authorities as well as increasing the role of the European external audit (EUROSAI, ECA).

2.2 European Platform of exchange and access to information

The reference document of the EU framework concerning the adaptation to climate change, *The White Paper on climate change adaptation*, is proposing a European platform for exchange of and access to information called *Clearing House Mechanism* on climate change impacts. This will be implemented on the Internet, will improve the access to the information stored in a database through IT tools and will also facilitate the assessment of national, regional or local impacts of climate change. *Clearing House* will provide information on the basis of scenarios having as object the climate change for essential variables (temperature, precipitation, wind intensity and so on), for the next decades, their impact on different sectors (agriculture, tourism and so on), the resulting vulnerability for some regions of Europe, as well as indicators, impact assessment tools and best practices.

The *Clearing House Mechanism* will be operational in 2011 and will be integrated with the *Distributed Environment Information System* developed as a joint initiative of the European Commission and the European Environment Agency (EEA) to establish a common information systems context with the Member States concerning the environment. It will also connect with the information system GMES (*Global Monitoring for Environment and Security*) to provide for geographical information.

The most authorized source of scientific information about climate is *The Intergovernmental Panel on Climate Change* (IPCC), established in 1988 by the World Environment Organization (WMO) and the United Nations Environment Program (UNEP). The goal of IPCC is to assess, from a scientific, technical and socio-economic point of view, the relevant information, in a coherent, objective, transparent manner, concerning the climate change adaptation options and the associated potential impact as well as the mitigation of dangerous consequences, as a documentary, while also being a basic source for the audit.

2.3 The role of ecosystems in the rehabilitation required by climate change

Ecosystem-based adaptation is in most cases the best and most effective, as more services are provided for and synergy is promoted. Europe has developed a network of over 26,000 protected areas in all Member States, representing more than 20% of the territory of Europe, a network known as Natura 2000, the largest network of protected areas in the world.

2.4 Policies, strategies and programs related to EU framework on adaptation to climate change

Climate change issues transcend the limits set by borders. Therefore, EU policies should be integrated in all relevant international agreements and policies, such as: The European Neighborhood Policy (ENP), The Comprehensive Agreement on Climate Change Copenhagen, The Global Climate Change Alliance, and other bilateral agreements.

In Copenhagen it was proposed that all developed or developing countries should

implement coherent national strategies for adaptation and reduce the impact of climate change, should use the modern technologies and design support for the related strategies, should promote cooperation projects and create a dissemination environment for knowledge and technologies. A number of advanced Member States, such as Denmark, Finland, Germany, France, Hungary, Netherlands, Spain, Sweden, The United Kingdom, have already adopted national strategies in this domain.

Also, as part of the agreement in Copenhagen it was proposed to create funding programs and to establish financing options for poor or developing countries. For emergency situations and disaster risk reduction the adoption of a funding mechanism to react immediately has been proposed - *Global Climate Financing Mechanism (GCFM)*. This will allow the funding of priority actions related to climate (approximately 1 billion per year for 2010-2014) and will represent a significant area of audit.

At the level of the EU responsible institutions, environmental initiatives were formulated and appropriate measures were taken to support the European framework for adapting to climate change. These are summarized below:

- Launch of large scale research and development actions that integrate physical models and projects on adaptation to climate change in an economic model that quantifies the impact of climate change on vulnerable issues in Europe;
- Develop lines of actions, guidelines and methodologies concerning the management of the adaptation to climate change;
- Rising the awareness of global climate change substance and of the impact over regional and sectoral level;
- The foundation of climate change adaptation decisions on sound scientific and economic analysis. At the European level, a package of political measures has been initiated in order to reduce the emissions of greenhouse effect gases through the *ECCP (European Climate Change Program)*, involving all Member States, to implement their own measures, either complementary or converging, to explore low cost options, in synergy with the *Lisbon Strategy* as regards the economic growth and job creation, which constitute also basic targets for the audit.

The *Council on Environmental Issues* held in Brussels in December 2009, after the Copenhagen Conference, set forth the priorities of the Council of Europe in the quality of the environment, summarized by the following phrases: (a) eco-efficient economy (environmental and economic): green economy, new products, new energy sources; (b) reconciliation of areas: common, consistent and convergent policies; (c) cross-compliance; (d) modern technologies of communication and dissemination of environmental information; (f) computerized reporting procedures.

Adaptation will be a long and continuous process, will operate at all levels and requires coordination of stakeholders. EU will support efforts to adapt and will ensure that such efforts are based on adequate resources, spent in an efficient manner within the meaning of value for money. In this framework, the European audit institutions, ECA (European Court of Auditors) and EUROSAI (European Organizations of Supreme Audit Institutions) are periodically reviewing the implementation of the strategies, policies, programs and projects, to assess the progress of the implementation of environmental governance, to establish how the financial resources were spent and formulate recommendations on the development of future adaptation measures.

3. THE IMPACT OF THE AUDIT OF THE EUROPEAN PROGRAMMES ON CLIMATE CHANGE

The approaches in the design, implementation, monitoring and evaluation of policies, measures and programs on global climate change are assessed in the EU in the context of audits conducted by ECA and EUROSAI through the *Working Group on Environmental Audit (EUROSAI WGEA)*, as well as through prestigious European external audit institutions. Peculiarities of the audit of programs on global climate change are resulting from the presence of factors specific to issues of the audit, to the audit questions, the audit methodology and audit criteria. The most relevant are listed below.

(1) Environmental issues must be taken into account when defining and implementing

economic policies in all areas: energy, transport, health, agriculture, education and so on.

(2) Environment is a transversal approach and that is a main reason that cause difficulties in its approach, involving assessments in other areas.

(3) Reporting the audit results, in terms of the environment, with respect to various policies implemented by the government are very complex. The complexity arises from:

- *Integrating environmental issues into another specific policy area is a reason which complicates those who will manage.*

- *In budgetary terms, the environment is associated with additional costs in the public budget and small grants to beneficiaries.*

- *The environment protection may be or may appear contradictory with respect to other sector-specific policy objectives that apply.*

4. CONCLUSIONS

Conducting environmental audits implies by now many vital activities: the conclusions and recommendations of the audit usually refers to measures to be implemented in order to ensure the environmental sustainability and the project management, for implementing environment strategies and policies, for the creation of appropriate organizational structures for the implementation of environmental policies and the allocation of new responsibilities of government, for efficient use of funds allocated to environmental programs as well as for establishing relationships with other sectors.

Referring to the EU policies, many of them including environmental protection, the auditors face difficulties arising from:

- *Interpretation in terms of the audit of the management issues;*

- *The audit risk is related to complexity, the audit work requires the analysis of several entities involved and the management procedures applied;*

- *Audit criteria have different targets and may be numerous (e.g., the control of CO2 emissions, the amount of pesticides, sustainability of species and so on);*

- *Audit missions are in most cases heterogeneous audit areas affected by the environment (water, agriculture, life quality, consumer protection) combined with the audit of cohesion policy;*

- *Organizational EU audit structures concerning the environmental policy implementation: the responsibilities are complex and the audited fields go beyond borders (countries).*

Solutions to address the issues are: parallel audits, the use of international standards and conventions as well as the exchange of experience and knowledge.

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THE IMPACT OF EXISTING LAW OF THE REPUBLIC OF MOLDOVA ON WINE MARKET DEVELOPMENT

Svetlana GANGAN

State Agrarian University of Moldova, Marketing and Aquisition Department,
e-mail svetlanarusu@rambler.ru

Key words : wine market, licensing and certification procedures, quality protection, lack of transparency

Abstract

Analyzing the disastrous situation created in the Republic's of Moldova wine sector (the deficiency of external commerce and the formation of stock with Moldavian wine), there can't be blamed producers only. In this situation we should refer to the contribution of governmental organizations which administrate, verify the quality and control the wine production, within the country and abroad. Though there are a lot of administrative agencies responsible for the development of the wine sector, there is no separation of competencies between them, fact that creates an overlap of checking and supervision. This is the result of some imperfect legislative actions imposed to the producers and to the responsible administrative agencies.

INTRODUCTION

to adapt the quality of the national wine products to the standards of the international market. For this, in recent years there were adopted a set of basic laws and regulatory documentation for wine production, taking into account the requirements of international law. However, legislative and regulatory framework of Moldova, demonstrates lacks of transparency and is bureaucratic compared to the regulatory system in European and non-European wine producing. There were and there are made attempts to adjust some regulations with international practice, but they were discreet. Laws and regulations are often opposed and incorrect.

MATERIAL AND METHOD

The global wine industry is divided within two categories of wine producing countries: new producers and traditional producers. Most countries are traditional producers: France, Italy and Spain. Moldova is comparable with, but according to the International Organization of Wine, it is considered one of the traditional producers who are among the top ten largest exporters of wines and 10th place - after the volume of production (estimated in 2005). Moldova holds about 3.1% of world exports of wine, 1.4% of global production. In 2008 in

Foreign market requirements show that it is necessary

Moldova have been planted 150,000 hectares with vines of which 136,700 ha - fruitful. From the whole area of fertile varieties - 86% are wine grapes and only 14% are table grapes.

Though there are a lot of administrative agencies responsible for the development of the wine sector, there is no separation of competencies between them, fact that creates an overlap of checking and supervision. The two main agencies are:

- Agency "Moldova-Vin", a ministerial-level institution, its aim is to promote State policy in wine industry. It is responsible for promoting products, organizing trade missions, fairs and exhibitions. It serves as a regulatory authority, responsible for law and government decisions and measures, standards, technical documents, etc. The Staff of Agency Moldova-Vin provides its duty to control the quality of alcoholic products. If we examine the role of the Agency in promoting the products, then we see that the quality control function is represented by e contradictory principle of noninterference. Control functions are usually executed by another independent authority responsible for enforcement of the law and applying penalties for committing violations.

- State Inspectorate for Supervision of Alcoholic Products (ISSPA), which is a state body, which is subordinated to the

Moldova-Vin Agency, responsible for supervision and control of alcohol production and its circulation on the national level. Although ISSPA has these functions, it is only a monitoring authority and has powers to apply sanctions or penalties, which considerably limits its role and allow other authorities to engage in control wine sector.

Other administrative authority which complicates the wine business activities are:

-*National Center for Quality Control of alcohol products*. The center is authorized to issue certificates to confirm the quality. This is the only body authorized to test wines in its laboratory in order to issue the certificates.

-*Traffic Center record of alcohol and alcoholic products*. The state agency which issues trademarks and monitor their use on the bottles.

-*Central Commission for tasting of alcoholic products*. Part of Agency Moldova-Vin. The Commission is responsible for the wine tasting which will assign them the new names and technological instruction and the tasting of the wines that require a certificate of compliance.

-*Approval Council of external appearance of wine products and alcohol*, which is also part of the Agency Moldova-Vin, but it examines the record labels of alcoholic products and technological instructions on the label.

There are other public authorities involved in the regulation of wine industry, among which are the Chamber of Licensing, Standards and Metrology Service, Police, Ministry of Ecology, and Preventive medicine Department.

National Institute of Wine - although it is not an administrative body, it is involved in developing technical regulations, normative and technological documents as well as developing plans to create plantations of vine. Logically, it should focus on research into wine industry, as there are done in institutions of other wine producing countries and not on regulatory issues in the sector.

There could be mentioned a number of critical factors relating to legislative and regulatory framework:

- Licensing and certification procedures do not fall in national efforts to reform and improve the business environment;
- Private sector participation in decision making is limited. If the private sector is involved, this

will contribute to a fair and transparent regulatory framework which can ensure the protection of the quality, minimizing business impact.

- Even if the legal framework is a restrictive one, the final products do not meet the principles of consumer protection and the importing country's standards, such as the European Union.

- The legal framework does not ensure free competition and restrictions on small and medium-sized wineries, which in other countries are the core of creativity and innovation, thus coming into conflict with the philosophy of market economy recognized in Moldova as a democratic state.

- All legislative and regulatory framework needs to be harmonized with international standards, particularly adapted to EU legislation, taking into account generalized documents prepared by the OIV.

All wine sectors activities are licensed and the individuals that manage this kind of business must be licensed too. In accordance with the Law on licensing certain types of business Nr.451-XV of July 30, 2001, the following types of activities subject to licensing in wine sector:

- Planning and design of vine plantations, and production and marketing of seed and cuttings;

- Import of ethyl alcohol and the import and the wholesale marketing of alcohol and / or alcoholic products;

- Production of ethyl alcohol and alcoholic products, stocking and wholesale marketing of ethyl alcohol and alcoholic products;

- Retail marketing of liquor.

In general, companies in the wine sector disagree with licensing procedures, especially with the conditions of compulsory licensing, with additional documents to be presented, and the reasons for suspending or revoking the license. Licensing conditions are represented by norms, which settle the licensing process and any non-compliance shall be considered as grounds for refusing to issue the license or license suspension and revocation.

Unfortunately, the complexity of licensing requirements leads to interpretations that differ from one another, which in turn could lead to abuse and unpredictability in the licensing and

launch of the company. The content of the license includes provisions that have emerged in practice, are unnecessary, outdated and / or inconsistent with the principles stipulated in other laws. For example, plans for forecasting the product assortment and production volume as part of the licensing is not justified in a market economy. They create constraints in adjusting products to market conditions. To track the quality of products and there are other records and reports. Moreover, state instruments such as state trademark, certification and state inspectorate function easily achieve the same result - ensuring product quality and control the volume alcoholic products.

Other aspects of the laws governing the licensing of which are unnecessary and inhibit the increase, include compulsory license for possession of premises for production, limiting investment and financial means to purchase new units and equipment for production, such as through leasing, and Law 1100/2000 which stipulates that only licensed companies can rent a winery, which inhibits the production small and medium companies. Taken together, these regulatory restrictions constitute a vicious circle: to obtain a license, a company must have owned the production room and to rent a winery, the company must be licensed. As a result, required to have rooms for production, to own machinery and equipment limits the wineries innovation, development and investment opportunities.

High fees contribute to strengthening the wine business and create obstacles to developing small and medium sized wineries. In other countries, license fees are adjusted to the volume of production of small wineries that are charged lower fees than large ones. Another major constraint is compulsory license for the trademark registration of products and / or services, which is contrary to the principles of the Law Nr. 588-XIII of 22 September 1995 on trademarks and appellations of origin and the international treaties to which Moldova is party. The obligation to register trademarks and products creates financial losses for wine producers. As a final example serves the list of documents necessary to request the license,

which is contrary to the principle of "one stop shop".

Moldovan legislation contains fewer restrictions on the vine growing than on the wine production. To have a life plantation it is not necessary to obtain a license, but there is a requirement of vineyard planting area of more than 0.5 hectares. It should be noted that one important factor is the law which states that all owners of agricultural land must be Moldovans. Important legal and regulatory issues that require review are:

- Only varieties included in the Register of plant species can be used in production.

- Vineyard for commercial production on larger areas of 0.5 hectares must be created under a project developed by licensed professionals.

- The vines must be used at least 25 years after the first harvest.

- The grapes must be processed to wine in more than four hours from their harvest.

Wine-making is an over-regulated activity, which is led by numerous laws and regulations at different levels. Regulatory framework governing winemaking includes laws and decisions of government, provisions of the Moldova-Vin Agency and other ministries, normative and technical regulatory documents. Normative and technical documents are put into force by state authorities and manufacturers must comply. The failure of any detail in the multitude of documents leads to serious penalties such as revoking the license, the application of penalties, etc.

Apart from the requirement to have a valid license and to respect the conditions for licensing, license receipt wineries must register in the State Register on the circulation of ethyl alcohol and alcoholic products. Being a licensed wine producer is to own a winery, and a storage room for storage. To obtain permission to produce wine, a person must comply with a long list of equipment and conditions. These regulations are restrictive, limiting innovation and access to small and medium-sized wineries. Even for industrial wineries the required minimum capacity is too burdensome. This interference in the activities of wineries is unnecessary since the state has the opportunity to certify the conformity of production.

Wineries are not allowed to give on lease the buildings, equipment or specialized stores to other staff who do not have such licenses. This restriction limits the ability of wineries to profit from its assets through leasing. Typically, large wineries have excessive production capacity in certain periods. This ability could be used by smaller producers, which could bring more dynamism and growth in the wine sector. Equipment must pass the preliminary expertise of state environmental authority for issuing permission and authorization of metrological inspection, tax inspectorate, etc. These controls are numerous, and can cause trouble in wineries activity, also may stimulate illegal activity.

The wine must be produced under a number of over 4 000 normative and technical documents. There is no list indicating the documents that are needed or are no longer in force. The lack of transparency makes wine producers to ignore these documents. Only technical regulations are issued free of charge, others must be purchased. A technological instruction for a specific name / brand of wine costs about 15 000 USD. Most normative and technical documents are outdated and wine production technology is presented in too much detail. Most of them are unnecessary, because winemakers have knowledge of wine production, and these regulations serve only to limit innovation and reduce the possibility of following the styles of wine to comply with international market demand. Indicators prescribed in these documents are not adjusted to international standards, which create barriers for export to Western countries and the European Union. Even the "The Code of the Winery," the only technical regulation which prescribes the basic procedures and materials used in wine is contrary to the new Law of Vine and Wine and must be adjusted.

Wine labels must be approved by the Board for approval of external appearance of wine products and Spirits, established by Moldova-Vin. The powers of this authority is not regulated by law or government act ever. This contributes to subjectivity in council activities and does not guarantee the applicant's rights to challenge the board decision in court. Law 1100/2000 shall regulate the functions of the board and ensure that its members are not

trained in other control activities to avoid conflict of interest. There is some guidance in the written form for applicants or some information on the label requirements of importing countries.

The certification process is not governed by any official legal document. These procedures are stipulated in the rules of the National Center for Quality Control of alcohol products. Taking into account the principles of the Law Nr. 235-XVI of 20.07.2006 on the basic principles governing entrepreneurial activity (Guillotine II) certification process must be regulated by law. To avoid confusion among wine producers and staff of government institutions there must be developed written guidelines for these procedures.

There are two types of certification procedure: the certification of parties and lots certification. Most wine producers choose party certification (certification of bulk wine), because it allows testing of higher volumes at a lower price. After certification of the lot, it must be obtained a certification of the lot for bottled wine. The certification procedure includes seven steps. The procedure requires several accompanying documents and may take over 10 days.

With all the legislative shortcomings and strong points, Moldovan wines are exported to the European Union in terms of facilities provided by Autonomous Trade Preferences (ATP) since 2008. Autonomous trade preferences in terms of exports began after the entry into force of provisions of the Regulation on management of tariff quotas to export goods to EU approved by Government Decision in Kishinev. Regulation provided by the Ministry of Economy and Trade permits to export goods in the EU in order of receipt of applications, based on first-come-first served basis. At a special meeting the Ministry of Economy and Trade has distributed quotas for wine exports for 14 Moldovan economic agents who have obtained permits to carry out exports to the EU. Among the companies that applied for permits are "Cricova", "Lion Gri", "Bostavan Winery", Quality wines fabrique "Milestii Mici", "Acorex Wine Holding", "Bardar Winery" and other producers. Wine export permits are issued by the Ministry of Economy and Commerce for a period of 30 days, without charges or any

additional costs. After the expiration of the permit, the exporter may apply for a new export permit. The conditions of Regulation stipulate that the quantity of wine exported by a trader must not exceed 10% to the EU which is 600 thousand dal in 2008, with double amount up to 1200 mii dal in 2012. EU proposed Moldova quotas for wines with alcohol content up to 15% and other products in wine, including sparkling wines, brandy, vodka and other spirits to be exported without quota and duty-free. The research on the practice of international wine shows, that only in the CIS countries exists a system of normative-technical documents. EU countries, USA, Australia, New Zealand and others have a general document which contains provisions relating to winemaking practices, basic chemical and physical indicators, restrictions on product technology and tools to protect consumer rights. Current argument for maintaining the old system is that it is mandatory for exports to Russia and CIS market. However, many other countries exporting to this market without having technological instructions for each name and trademark of the wine. A good example for Moldova could serve Georgia, which denied by the Soviet system. Georgia has a vineyard and wine law stipulating specific technological regulatory. For some products name recognized as designations of origin were approved specific documents governing the production process for these names (eg Mukuzani, Napareuli, Tsindali, etc.) All other wines are not covered by technological instructions made or approved in advance, so long as they meet

the requirements established by law, general standards for goods and export requirements.

CONCLUSIONS

We believe that Moldova should refuse this complicated legal system, which constantly opposed, forming serious obstacles in the development of wine business and, respectively, of the wine market of Moldova.

There is vineyard and wine law and it should be promoted ideas of developing documentation governing wine production process required on foreign markets. All sorts of checks and controls, which in most cases oppose, the lack of transparency, cause regression in wine. Wine exporters opinions about customs procedures are quite negative, meaning that they are cumbersome and extremely bureaucratic. The package of documents requested by the Customs Department creates additional problems or costs. This charge has some payment for the emergency procedure, thing that is less expensive on European markets.

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THE SIGNIFICANCE OF MARKETING IN DEVELOPING THE FORESTRY AGENCY “MOLDSILVA”

Svetlana GANGAN, Rodica BURBULEA, Alina CHITU

State Agrarian University of Moldova, Marketing and Aquisition Department, 44 Mircesti, Chisinau, Republic of Moldiva, e-mail svetlanarusu@rambler.ru e-mail burbulea2000@rambler.ru, a.badarau@yahoo.com

Key words : medicinal plant market, Forestry Agency “Moldsilva”, strategic view of marketing.

Abstract

The process of studying the medicinal plant market is a relatively new section in the Marketing Department’s activity of Forestry Agency “Moldsilva”. The insistent research of local and foreign market has influenced the increase of the revenue from sales, especially on selling medicinal plants on the local and foreign market. But there is not involved a strategic view of marketing which does not allow a market research with the aim of establishing trends and technological advances in the field, tracking competitors, sales forecast, improving methods of distribution, etc.

INTRODUCTION

Moldova is classified as states with a low degree of afforestation. In early 2008 the area covered by forests was 362.7 thousand hectares, or 10.7% of the country, which is very little compared to Europe (29%) or with countries in the same biogeographical region - Romania (28 %), Bulgaria (35%) and Hungary (19.5%). Once this region was more wooded. Two centuries ago, the territory between the Prut and Dniester was occupied by forests for more than 30%. In XIX-th Century large areas were cleared and placed in set-aside. From then until the mid twentieth century forest area has been decreasing continuously. Forest areas began to increase again in the postwar period, when tens of thousands of hectares - degraded land unusable in agriculture - have been allocated for afforestation. Forests are an important stabilizing factor for the environment, contributing to the conservation of biological diversity, stabilize land threatened by erosion and landslides and protect water resources. Moldovan forests within group I – called functional, having the exclusive role to protect the environment. Therefore, the protection of forests and forest products is the main purpose of several state bodies, including the Ministry of Ecology and Natural Resources and Forestry Agency "Moldsilva.

MATERIAL AND METHOD

Conservation of forest biodiversity is ensured by following good management practices through extension of forest and protected forest areas. Forests constitute 92% of the country's protected natural areas; on the other hand, 17% of forest is under other forms of protection. Moldova has 49.3 thousand hectares of forest vegetation outside the forest, including 30.8 thousand hectares of protective forest belt (agricultural fields, rivers and water basins) and 18.5 thousand hectares for other types of forest vegetation. Unlike the forests managed by the Agency "Moldsilva, land with forest vegetation are not arranged and managed right. These lands have suffered from illegal cuttings or / and lack of care. However, they continue to have an important stabilizing role in agricultural landscapes and in maintaining ecological balance. Moldova's Law on the improvement of degraded lands through afforestation, sustainable development strategy of national forestry sector, Government Decision no. 595 of 29.10.1996 and no. 107 of 07.02.2001, a number of international conventions and agreements to which Moldova is party, provide the extension of areas covered with forest vegetation to improve the areas affected by destructive processes, creating islands of trees and shrubs and green corridors between the

wooded massive, the curtain of protection along rivers, roads and around businesses. To carry out the functions of maintaining the ecological balance necessary to wooded areas in the country exceed 15%. During the period 2003-2020 the forest cover is going to increase to 128 thousand hectares, including: 73 thousand ha of forest plantations on degraded land, 28 thousand hectares of forest belts anti-erosion, 15 thousand hectares of water protection strips, and 12 thousand ha agricultural crop protection. In 2006 were carried out on forest vegetation planting 7510 hectares of degraded land affected by landslides, aside permanently excluded. The total area achieved in this compartment during the period 2002-2008 is 37,629 ha.

Forestry Agency "Moldsilva" is a state agency therefore its customers are primarily state organizations. Among loyal customers are:

- people, who buy different products for different purposes,
- educational institutions, municipalities and hospitals, which procure firewood,
- companies as "Viorica-Cosmetic" and "Farmaco", which purchase large quantities of herbs for manufacture oils and cosmetics and pharmaceuticals,
- all wine businesses which have plantations of wine like "Acorex", "AspectInvestVin", Purcari, "Carahasani-Vin" - buying stakes as support for the wine.

Forestry agency "Moldsilva" maintains close relations of cooperation with public bodies, so it obtains and collects the most diverse information and data which are analyzed and used for its development and development of the state. Of all the public bodies that cooperate with "Moldsilva" are: City Halls, Central Public Administration, Ministry of Ecology and not least the Ministry of Internal Affairs.

According to marketing concepts, the success of an enterprise depends on how it satisfies consumer needs, so it must not adapt to competition, but to position itself so that its products seem more attractive than the competitions products. Agency "Moldsilva" holds a great potential of raw material, it is unique in this area, which has free raw material, however, she has many competitors. The competitors are represented by small

entrepreneurs of woodworking and production of semi-finished flooring, which are strategic products for the Agency "Moldsilva". Competitors procure raw materials, wood, at a very advantageous price, and process it according to all standards, with some of the best equipment. That is why, all competitors investments are directed towards buying the most sophisticated equipment, mechanized and computerized. Since the Agency "Moldsilva" is a budget organization, employee salaries are not so large as in the private sector, and equipment is quite old, that why is "Moldsilva" obtains low quality of semi-finished products. Thus present and prospective customers of the Agency "Moldsilva" redirect their attention to the quality produced by small entrepreneurs, so it loosing much of its sales. Same thing we can notice at berries and medicinal plants, which are not correctly packaged, the weight is often wrong, in packages are introduced more types of species and impurities, which is prohibited by special standards. This case defines an unfair competition between "Moldsilva" and its competitors. Competitors are observing and analyzing the mistakes committed by "Moldsilva", and produce a standardized commodity, buying a fairly inexpensive material. Indeed the quality of manufactured products in the Agency "Moldsilva" are not so qualitative, although it tends to strict quality control processing and production. Recently, it was created a new feature in the Agency "Moldsilva", a person to check the quality of products from raw materials to finished production. So far the Agency "Moldsilva" was not fighting competitors, not because it didn't felt cornered, but now it increases the prices of raw materials in which it invests more, sometimes not selling it, and as I mentioned in quality. From small businesses competing with the Agency "Moldsilva" we can mention: "Lucretia Sandu", "Adasa Belostecinic", "Adam Basil"; Larex Group; "Wood-Products"; "Techno-forest"; Alrizo; Arboris-COM; Ra-vado. Often those companies are proposing and selling their products to cement plant, glass factory and carton factories.

The major foreign partners of the Agency in the marketing of medicinal plants and berries are:

- S.C. „Penexport” S.R.L – Romania.;

- SIA "Kosme-Vita" - Lithuania;
- "Ameropa" Holding - Austria;
- "Tea Herbs Resource" – Bulgaria;
- SIA "Elpis" – Lethonia;
- S.A. "Sumitofarmacia" – Ucrain;
- S.A. "Farmaco" – Republic of Moldova.

For the Marketing Directory of the Agency "Moldsilva" market analysis of medicinal plants is not limited to decipher the elements of a general nature, theoretical elements, to explain certain behaviors and attitudes but also involves market assessment using directly measurable indicators. Therefore it is absolutely necessary to study the market size.

Our research demonstrated that in 2008 in Moldova have been collected about 665043 kg of herbs, of which:

- The rural population of Moldova has collected about 465530 kg of herbs;
- Agency "Moldsilva" collected about 199513 kg of herbs;
- "Medfarma" has collected about 39902 kg of herbs;
- "Alvisedo-Impex" has collected about 26601 kg of herbs.

Comparing the obtained results, we can show the market share of each competitor, as follows:

- The rural population of Moldova - 60%;
- Agency "Moldsilva" - 30%;
- "Medfarma" - 6%;
- "Alvisedo-Impex" - 4%.

The first competitor is the population, which has the largest market share, it represent a serious obstacle for developing the Agency's "Moldsilva"

position on medicinal plant market because the production is sold at a very affordable price. However, the greatest shortcoming of the population, according to the competitor in this market is that product's quality is not high enough and does not meet standards (production contains many impurities and is packaged wrong). Agency "Moldsilva" often takes advantage of this fact, it buys production from the population, gives the appropriate state and puts it on sale, both on the domestic market as well as on the external. Agency's "Moldsilva" other two competitors, on the medicinal plants market, are companies' Medfarma and Alvisedo-Impex.

"Alvisedo-Impex" - dealing with production and marketing of dried fruits: prunes, cherries, apples, production and marketing of forest berries and herbs: hip (*Rosa canina*), corn (*Cornus mas*), collection, processing and marketing fresh cherry, walnuts and honey, production and marketing blackberries. The enterprise has organic certification for selling products. The enterprise is supported by the U.S. Agency for International Development (USAID) through the Agribusiness Development Program (ADP).

"Medfarm" - dealing with production and marketing of medicinal plants, medicinal preparations V03A, antiseptics and disinfectants DO8 preparations, pharmaceutical preparations, and is based solely on its own capital.

These two companies are collecting plants in order to sell it, also to manufacture pharmaceutical products and their subsequent sale. Now they are not an obstacle to strengthening the Agency's position on the market of medicinal plants, because they sell large quantities of herbs, a situation which can change in the near future.

If because of the failure of quality standards or other causes, the population does not sell its entire production, and population stocks remain about 20%, then the Agency "Moldsilva" sell their production completely, in stocks remain a percentage of production that is represented by low-quality plants, which were not stored properly and have lost its qualities, and impurities. Enterprises "Medfarma" and "Alvisedo-Impex" sells all plant production, because the possession of small quantities.

If we were to talk about demand for medicinal plants facing the Agency "Moldsilva" market, then we can say that the demand is a full "one", the market absorbs the whole offered quantity. This is because the entire production of the annual herb is sold by the Agency "Moldsilva" and the rate of the production that remains unsold in stocks is represented by the impurities remaining after collecting plants or low-quality production that does not meet the standards required. If we were to take into consideration that the amount of the collected herbs by Agency "Moldsilva" is increasing annually with a few percents and it manages to sell the entire

quantity, we must note that despite of the fact that its relative market share is not so great, though its position is strengthened.

Analyzing the demand for medicinal plants of the Agency "Moldsilva, we see a balance between supply and demand. The supply of medicinal plants which Agency "Moldsilva" is offering to the market is approximately equal to the demand for medicinal plants. This is quite favorable for the Agency "Moldsilva", which can continue this activity having pretty impressive profits from both the local and foreign market. The study showed that there is a balance as for the Agency "Moldsilva, so on the entire domestic market of medicinal plants.

The process of analysis the medicinal plant market is a relatively new for the Agency's Marketing Directory, because till now its aim was to satisfy consumers with wood and wood products, and the demand for medicinal plants was absent. Nowadays, however, the Agency increases sales revenues on selling medicinal herbs, also because of their export in large quantities.

Currently many entrepreneurs are interested in acquiring medicinal plants, for then to be processed and sold, especially if you manage to identify areas where you can pick herbs and fruit from low-cost spontaneous flora, you can obtain a big revenue from sales. Thus we can conclude that this market segment has great development prospects.

CONCLUSIONS

Blank development of this sector is because until recently in Moldova all processes of the national economy was in order, that was the command economy. During that period there was no promotion, distribution, research or other marketing activities, but production and manufacture of custom, which is felt even today. Although Moldova passed to a market economy, production remains in order to meet today. Although the Agency "Moldsilva tends to change and innovation policy is not sufficiently developed promotional, marketing manager focusing upon market research and production as the market requirements, without any policy to develop and implement distribution and promotion.

According to the study carried out, we can say that the vast majority of the population is using herbs in everyday life.

The protection of forest resources and forest products is the aim of several state bodies, between which is the Agency for Forestry Moldsilva, the only one, which has the function of making the extension, regeneration, conservation, ecological reconstruction, the use of forestry resources, security, protection, development of national forest funds and hunting, and local consumer satisfaction, as well as foreigners with firewood, wood logs, wood working, herbs and other products such as berries, mushrooms etc.

For the development of the business scope of the Agency "Moldsilva the marketing activity is crucial, because it is oriented mainly to market intelligence, competitors, strengths and weaknesses, threats and opportunities and not least to the discovery and meet the request on local and international market. Market share of the Agency for Forestry Moldsilva is approximately 30%.

According to the findings, we can reveal the following proposals:

- it is recommended for management of the Agency to materialize the marketing functions, and create a team that would make permanent research on domestic and foreign markets;
- market research purpose of diversifying its product range, establishing trends and technological advances in the processing of medicinal plants, tracking competitors, sales forecasts, improve methods of distribution, etc;
- the creation of a marketing plan concerning only medicinal plants, estimated market share, sales volume, sales conditions;
- ensuring transparency for the business sectors in order to seek legislation in this area, the official economic results of the traders in this area, regular or occasional market studies results.

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THE TYPOLOGY OF SOCIAL RESPONSIBLE CONSUMER IN THE REPUBLIC OF MOLDOVA

Maria GRIGORAŞ

The State Agrarian University of Moldova, 44 Mircesti, MD 2049, Chisinau, The Republic of Moldova, Phone: (373-22) 31-22-58, E-mail: grigoras-maria@mail.ru

Key words: the consumer, the societal marketing, CSR

Abstract

One of the essential problems of the firm is to create new consumers as well as keeping the devotion of the old ones. This way the income of the firm and its fez ability are dependent on the consumer's demands. One of the solutions which way guarantee the fez ability of the firm is to promote the social responsibility. The social responsibility gets an opportunity because it is a strategy of the marketing. There where there is no need of segmentation by age criteria, status comes a new stakeholder- a consumer responsible which is more informed, intolerable towards the goods' in safety and it is imposed not only in the technological process of the firm but also in its strategies and policies regarding the community's development the members of which they are; regarding the life standard growth of the people.

INTRODUCTION

All the time the firms tried to understand the necessities and demands of their consumers finally to offer them the product, which might identify with those ones and the sellers could sell with the product out any additional effort. For that there were used different strategies of market segmentation: from total marketing strategy (where the firm appeal to the large public) then to the differentiated marketing one (the firm is aimed towards certain segments), concentrated strategy and, of course, the most expensive strategy is the personalized marketing one, where the firm is aimed towards a certain client.

This way there is noticed a paradox: the total marketing strategy is favourable for the institution because the expenses for production are decreasing to the lowest level as well as research expenses, prices. But the differences, which might appear between buyers, are ignored. The firm produces only one kind of product for the whole market happening that everybody will enjoy it. And the personalized strategy, which treats the buyer as a unique person, but the expenses of the firm, is rather big: from production expenses, research expenses to marketing ones. And the price of the finite product is rather big, but the good is unique. This way the buyer faces a dilemma of

choosing the optimal version between two extremes: the exceptional quality at a high price (the strategy surplus to the price) or low quality at low prices (the strategy of decreased value).

But very often the institutions use the less ethical strategies for dumping offering the goods of an acceptable quality at low prices to production cost and when the competitors eliminated they increase the prices promptly offering products of an acceptable quality but at huge prices taking advantage of the tack of competitors, tack of information for buyers and are sure of the uniqueness of the product and it even a low "to conquer the market" or to recover rapidly the allocated investments.

In all these cases the consumers will lose but at the same time they gain the experience on learning curbed which gave a possibility to become a category of consumers of a great influence. The growth of life level, the growth of schooling level, the growth of consumer's flexibility abroad made it an stakeholder informed enough, intolerable, more and more difficult to make it satisfied.

Due to the globalization phenomenon, global warming, resources declining, mass-media impact and also the existence of different social problems there is a possibility of the other type of marketing segmentation which doesn't depend on age, activity, sex, income being called the segmentation according to social

responsibility and the objective of this segmentation becomes the social responsible consumer.

MATERIAL AND METHOD

We used a quantitative research of marketing regarding attitudes and opinions of Moldavian consumers. The average size was determined going from the following statistics restrictions: the probability guarantying the results is 98% (t value = 2,33 in this case) and the acceptable error limit is to be between $\pm 3,5\%$ ($\Delta_w = 0,035$). We used the formula to establish the average:

$$n = \frac{t^2 \times p(1-p)}{\Delta_w^2} [1, p.55]$$

From this formula results that in order to follow the restrictions of statistics type it were necessary to have an average of 1108 persons. To establish this average it was necessary to use the lot method from age point of view, sex, and life conditions on the basis of data provided by National Statistics Office regarding the 2004 censorship. The unit of questioning was the person of 18 years because the population researched was the most adult and might be interested of societal marketing development by the firms having an economic activity in the Republic of Moldova. The tool of gaining information was the interviewing formed of 52 questions arranged by sectioning principle. The spell of data collecting lasted from February 5 to March 30, 2008.

RESULTS AND DISCUSSIONS

The typology of the consumers itself consists in determining of some typical groups of the potential consumers grouped by certain criteria. Speaking about social responsible consumers the criteria of segmentation are diverse due to the existing demands.

The motivation of buying social responsible goods could be synchronized into 4 advantages: are more healthier, are tastier, guarantee the soil protection and correspond to a social interest.

Very often the will allure of the social responsible consumer is identified with a case or a stringent problem existing in its native country. For example, the Scandinavia

countries are based on ecology. Austria, Germany, Greece on labor security and hygienic amelioration, Luxemburg – on equal rights, ethical trade promotion in France and Great Britain [2, p.109] and this has an impact on buyers necessities.

Although the politics of Social Responsibility is meditated deeply and the international institutions (World Bank, World Economic Fund, etc.), the industrial and business groups, NGOs (WBCSD, Business in the Community, Business for Social Responsibility, etc.) interact constantly with the world business community collecting information regarding Corporate Social Responsibility this is still applied by a member of institutions but at the consumer's level the politics of CSR is rather simplified and very often controversy. In France, for example, according to a questioning organized by Ethicity [4], responsible consuming is equal not only with "to consume better, more efficient", but also with "to consume less".

Due to Moldavian people mobility abroad, due to increase buying potential and schooling level, the orientation of the consumer towards social responsibility from an important strategy, from a fashion gets a necessity and even a demand.

It is possible to consider that CSR is a deluxe strategy because there is a shortage of satisfaction. This shortage is caused by the lack of production factors in its promotion in some branches might be equal with its regress. Agriculture is one of the examples where demand growth for eco-products could be treated as a transaction from intensive agriculture to traditional agriculture. And this gets dangerous even the food security of the country.

On the other hand, the country having a traditional agriculture could export eco-products to the other countries high industrialized where they could be sold at high prices. This way improving the level of life in developing countries on the basis of obtained big income. But there is also a dilemma: the supply of eco-products is not voluminous and it is impossible to get fabulous income to settle up the existing stringent problems in agrarian societies and it also gets dangerous for people's health and food security providing.

In Moldova the consumer has the chance to buy an eco-product, if he is an agrarian himself or is visiting the traditional open air markets although there are many risky factors concerning the hygienic quality of the products, biological quality, esthetic and even positioning. In modern distribution markets will be bought native safe-products only to the end of this year. The lack of eco-products supply in the markets is explained by the fact that the Moldavian consumer is not able to buy expensive products yet, and to promote business; these products are exported in Italy. Although the businessmen are skeptic concerning the existence of social responsible consumers, they exist and according to a research there were determined two segments of attitudes. Due to the demands and the type of social responsibility treatment by the firms, the consumers were called “tolerable” and “intolerable”.

44,13% from the respondents demand the firm’s social responsibility assumption but they are not ready to pay more for responsible products because of that they were named “intolerable consumers”.

55,87% from the respondents would like the firms to assume social responsibilities and are ready to pay more for that and they were called “tolerable consumers”.

Analyzing structurally the category of “tolerable consumers” by activity and income (figure 1) the most oriented to a durable consume are the hostesses with a rate of 38,61% then the category of schoolchildren and students with 18,9% and the peasants and pensioners with 14,86%.

It is noticed that the income and education have a less impact on responsible behavior of the consumer.

An incontestable factor is the fact that responsible behavior is formed of personal experiences and has an extension at the peasants who know the effects of the chemicals and chemical treatment towards agro-products and domestic which is responsible for the health of their families.

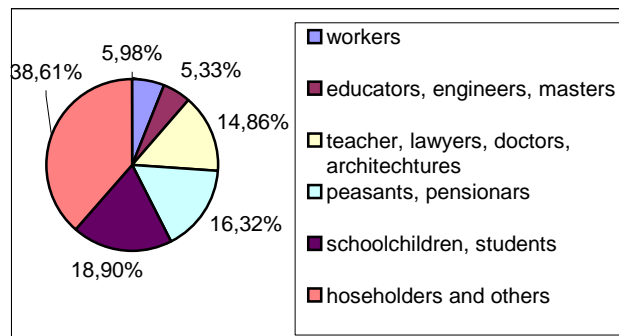


Figure 1. The tolerable consumer’s appreciation by activities and income

Students’ conversions towards a social responsible consume is done due to mass-media impact on attitudes formation and attitudes concerning planet pollution the impact of fashion and their orientation towards western culture, Asian.

Analyzing the category of “tolerant consumers” by age (figure 2) it is possible to conclude that the most oriented to responsible consume ones are those between 35 and 49 with 30,05%, then those between 15 and 24 with 19,87%.

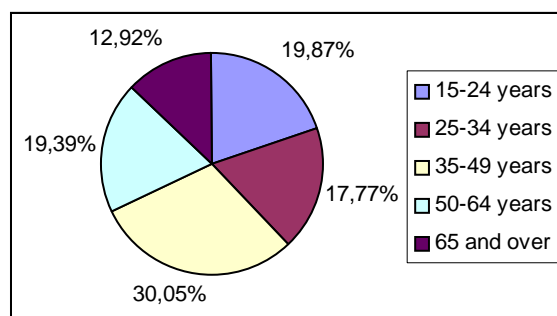


Figure 2. Tolerable consumer’s appreciation by age

Moldavian consumer trying to be a social responsible an requests a number of demands which might be classified this way: 48,95% demand qualitative products, 25,04%- cheap products, 12,6% demand publicity on more TV channels to find easier the needed products. 7,89% would like the managers, employers to be loyal people and 7,59% would like the politics of the firms to union towards a social interest.

The businessmen couldn’t ignore the new typology of the consumer because it is very favorable for them and especially lead to financial situation improving of the firm.

The tolerable consumer is aware of the fact that in a non-stable business environment as well as

in a collapse situation the social responsible firms must be promoted and encouraged by the consumers via repeated actions of buying, loyalty etc. From this point of view the tolerable consumers are willing to pay more for goods interested with 41,87% in comparison with the initial prices.

Calculating the average from the limit of interval via moment method or simplifying average size calculation during way of distribution in unequal intervals

$$\bar{X} = \frac{\sum_{i=1}^r \left(\frac{x_i - a}{k} \right) f_i}{100} \times k + a, [3]$$

where x_i – calculated average from the limit of interval,

f – frequency of the limit of interval,

a – constant amount (size),

h – amplitude of variation.

Then Moldavian consumers are ready to pay with 23,37% more for the certain products for services.

CONCLUSIONS

1.The typology of the consumers according to social responsibility went from an important

strategy, a strategy of fashion to a demand, which cannot be neglect.

2.The social responsible consumer has more a female eagerness, domestic at an age of 35 and 49 years.

3.The social responsibility lead to mutual favors: the consumer receives safe goods with a specific taste (speaking about food products), satisfaction because there was a contribution to a social interest partial or complete settlement, and the firm gets more big and durable profits on the market.

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ANALYSIS OF MONEY RESOURCES FLOW IN “ZĂVOIUL MARE”, LTD. CO

Vitalie IGNAT

The State Agrarian University from Moldova, 44, Mircesti street, 2049, Chisinau, Republic of Moldova, tel. (+373 22 212808), gsm (+373 79 571894) liuda.c@mail.ru

Key words: *Wages of the currency, means, economical operations, financial activity, material stocks*

Abstract

The waves of the currency means by their economical essence represent incashing and payments of the currency means effectuated during the respective period of financial administration. The difference between the incashing sums and payments makes the plainly way of currency means. The importance of the currency means wave analysis is determined by the following factors: the utilization of the principle of the exercises specialization, on the basis of which is being calculated the financial result and are being elaborated all the Financial Reports except that one concerning the way of the currency means; the appearance of modification in the size of material stocks, debts and credits; the realization of non monetary diverse economical operations, for example: the postponement of the toxes, the depreciation of the fixed means, the amortization of unmaterial actives etc. The named factors above form the disparity between the financial result and the wave of the currency ,means, that is the enterprise may be profitable according with the data of the Report concerning the financial results and at the same time it is unsolvable.

INTRODUCTION

The agricultural enterprise executing economical activities contributes permanently to the cash flow. In order to reflect the movements in financial Reports, the notion currency flow is applied.

In the contemporary economic science and practice some other terms that characterize the same phenomenon are used: the flow of availability, treasury, cash, etc.

At the start of the analysis, absolute and relative sizes of currency flow are studied, making the comparison with the previous year and the predicted level.

MATERIAL AND METHOD

In order to draw this line of analysis, besides the information of currency flow Report, the data from the business Plan is applied.

In considering the size and evolution of cash fluxes in terms of the calculation technique can be determined: their absolute deviation (in the previous period and business plan), growth rate, increase growth, the percentage of plan fulfillment and the percentage deviation from plan.

The capitalization of the obtained information is effectuated starting with from the following aspects:

The successful use of the of operational activities should contribute to the positive net flow;

The development and the maintenance of the economic potential of the enterprise conditions from the investments of the negative flux;

Positive fluxes from the operating and financial activities (if necessary) have to compensate the negative flow of investment activity.

In case if the first and the last term are not respected, it is to be proceeded to the decrease of the currency flow and to the insolvency of the enterprise. The neglect of the second aspect leads to the reduction of the enterprise's potential in perspective.

RESULTS AND DISCUSSIONS

Using all the aspects we will perform the analysis of the cash flowing dynamics in LLC. "Zavoiful Mare", based on data from the Report about the cash flow for the last 3 years. We will calculate the deviations and the growth of the rate presented in Table 1.

Table 1 The analysis of the cash flowing dynamics

| Types of activities | The years | | | The deviations of the year of management (+;-)lei in comparison with | |
|---------------------------|-----------|---------|---------|--|---------|
| | 2005 | 2006 | 2007 | 2005 | 2006 |
| Operational activity, lei | -236493 | -263409 | -621042 | -384549 | -357633 |
| Financial activity, lei | 151701 | 279574 | 605165 | +453464 | +325618 |
| Total net flow | -84792 | 16138 | -15877 | +68915 | -32015 |

The source: The Report on the currency flow.

Analyzing the data in Table 1 we affirm the existence of negative tendencies in the situation with currency flow. The first aspect that comes into notice is the emergence of the negative net flow from the operating activity. If in 2006 LLC "Zavoitul Mare", as a result of their operational activity managed to generate the negative net cash amounting to 263.409 lei, in 2007 the operational payments reduced the revenues of this type with 357,633 lei.

According to data presented in Table 1 results the fact that the enterprise does not use the currency sources for purchasing fixed assets, which would be reflected by a negative flow of investment activity, which the enterprise lacks totally. The ignorance of this aspect can create difficulties in carrying out operational work of technical and material failure.

We ascertain that in 2007 in comparison with 2006 and 2005 the net flow of financial activity is positive with 325.6 and 435.4 thousand lei. However in 2007 LLC "Zavoitul Mare" a decrease in currency income on payments was observed, in the amount of 32 thousand lei.

The insolvency of the enterprise to form a positive net flow of its financial-economic activity that requires the disclosure of reserves by the factorial and structural analysis provides the users of financial reports detailed information on the origin and use of the collected currency. Within the analysis of the correlation between different channels of collection and directions (goals) of payment of currency is examined. The structural analysis allows the assessment of the contribution of each component of payments and receipts to the formation of net currency flow.

In contemporary economic science two technical ways of making structural analysis of cash flow are applied. The essence of the first one consists in the separate analysis of the

structure of income and payments by calculating the share of each component in the total amount of income or that of the payments. For the use of this modality in the process of preparing analytical materials, commonly circular charts are built, with which an accessible form of the structure of currency flows is presented.

In order to determine the influence of the changes of cash payments on the indicator in payments to the absolute deviation from the comparison period, the sign is inverted. The practical illustration of the currency flux analysis through the balance method is presented in Table 2.

Table 2 The calculation of factors influence over net currency flow

| Currency fluxes by types of activities | 2006 | 2007 | Deviations (+;-) | The influence on net flux |
|--|---------|---------|------------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 |
| Operational activity | | | | |
| Currency receipts from sales | 2650788 | 2506750 | -144038 | -144038 |
| Other operational receipts | 81304 | 170790 | +89486 | +89486 |
| 3Cash payments to suppliers and contractors | 1683253 | 1903255 | +220002 | -220002 |
| Cash payments to employees, contributions for social insurance and compulsory insurance premiums for health care | 941142 | 1351876 | +410734 | -410734 |
| Payment of interest rates | | 42822 | +42822 | -42822 |
| 1 | 2 | 3 | 4 | 5 |
| Income tax | 6429 | | -6429 | -6429 |
| Other operational payments | 364677 | 679 | -363998 | -363998 |
| Net cash flow from operating activities | -263409 | -621042 | -357633 | -357633 |
| Financial activity | | | | |
| Earned money in the form of loans and credits | 300000 | 300000 | | |
| Other receipts from the financial activity | 310658 | 555165 | +244207 | +244507 |
| Cash payments of credit and loans | 331111 | 250000 | -81111 | -81111 |
| Other payments from the financial activity | 310658 | 555165 | +244507 | -244507 |
| Net cash flow from financial activities | 279547 | 605165 | +325618 | +325618 |
| Total net flux | 16138 | -15877 | -261 | x |

The source: The Report on currency flow

According to data from Table 2 results that LLC "Zavoitul Mare", the most significant influence over changing the net currency flow in comparison with the previous period has exercised the majority of the payments and contributions from the state, and compulsory health assistance, which was increased with 220 thousand lei.

Also a positive influence on the analysed indicator had some other operational revenues which rose by 89.5 thousand lei. Under the

influence of the nominated factors the net flow was reduced during that period.

Also, in 2007 was observed the decrease of cash payments in comparison to 2006, a fact which conditioned the decrease of net cash flow. In particular, due to increase of payments of the suppliers the net flow was reduced.

At the analysis of the cash flow through rate method is commonly used the analytical practice from abroad in order to assess the situation with cash flow. The aspect of the method consists in calculating the financial factor, which reflects the different correlations between obtaining and using cash. The mentioned coefficients are multiple and varied but in most cases they characterize the capacity of the enterprise to satisfy some needs through available cash.

Next we will analyze the cash flows from LLC "Zavoiful Mare" with the help of rates method, based on data from the financial report will make the necessary calculations and we interpret results.

Table 3 Analysis of the rates of cash flow

| Rate name | The years | | |
|--|-----------|-------|-------|
| | 2005 | 2006 | 2007 |
| The rate of currency sufficiency (coef.) | -0,54 | -0,43 | 2,04 |
| The rate of coverage of the debts with cash flow(coef) | -0,15 | -0,13 | -0,36 |
| The rate of sufficiency of perfectly liquid assets,(days) | 0,11 | 2,02 | 0,1 |
| Cash reinvestment rate (%) | -9,45 | -0,8 | -0,79 |

The source: The financial Report of LLC "Zavoiful Mare"

According to the effectuated analysis we notice that in LLC "Zavoiful Mare" the sufficiency of currency rate increased suddenly. During 2005-2007 the company has generated as a result of operational activity a negative cash flow, so the need of the enterprise in cash to increase stocks of goods and materials is obvious. In the year of management we can notice the insufficiency in growth of the cash flow. The calculation of debt coverage ratio of cash flow shows that during the last 3 years the enterprise did not recover the amount of cash that was gained as a result of operational work. The situation is characterized in the year of management by the

total inability of debts recovery without external funding.

The date of payment of the announced dividend reflects the hypothetical capacity of the company to comply with legislation in force relating to the payment of dividends within a period not exceeding 3 months.

The rate of sufficiency of perfectly liquid assets is situated at a very low level, and in the dynamics there can be observed the reduction of this coefficient. At the end of the management year the enterprise lacks the perfectly liquid assets that would enable in the enterprise the conducting of operational cash payments. According to the effectuated calculations made in Table 4 the rate of reinvestment of currency in the previous year is well below the recommended level (8-10%). But cash reinvestment in 2007 did not occur because of the formation of negative net flow from operating activities. The examination of cash flow through the rates method allows the formation of an overall conclusion about the worsening situation in comparison with 2006.

Finally, the connection between the achieved financial results and cash flows generated within the economical activity of the entity is studied. At the end of this analysis we get the answer to the question: why, in terms of profit growth, cash balance is in decrease?

In order to examine this aspect of enterprise's activity, the absolute and / or relative deviations (measured in percentage) of cash flows of financial results can be calculated. The determination of the achievements is performed in comparison to the optimal situation:

Along with the steady growth of profits a less intense increase in positive net flow must take place. Finally we will highlight the concordance between the obtained financial results and currency flows generated within the economic activity of LLC "Zavoiful Mare", based on information from income and cash flow report, and we will sketch Table 4, and interpret the received results of the analysis.

Table 4 Analysis of correlation between financial results and cash flow

| Types of activities | The previous year 2006 | | Management year 2007 | | The deviation of the net flux from the financial result, (+,-) | |
|----------------------|------------------------|----------|----------------------|----------|--|-----------------|
| | Financial Result | Net Flux | Financial Result | Net Flux | The previous year | Management year |
| Operational activity | -50846 | -263409 | 115502 | -621042 | -212563 | -736544 |
| Financial activity | 366364 | 279547 | 555165 | 605165 | -86817 | +50000 |
| Total | 315518 | 16138 | 670667 | -15877 | -299380 | -686544 |

The sources: The Report on financial results; the Report on the currency flow

Analyzing all the data in Table 4 we conclude that LLC "Zăvoiu Mare" in 2007 gained profit before the taxation in the amount of 63.3 thousand lei. Simultaneously in the company was formed a negative net flow of money in amount of 15.9 thousand lei, which led to a considerable reduction of balance of financial availability.

As a result of the analysis of the submitted information there can be ascertained the gap between the achieved financial results and the cash flow. This difference in absolute amount makes up 686.5 thousand lei (670.7 + 15.8). This conclusion is valid for all kinds of activities over the last two years and requires financial disclosure of the causes of differentiation of the studied financial indicators.

The existence of significant deviations between the dynamic of the achieved financial results and cash flows may be the effect of various objective and subjective nature causes. In order to detect these cases the methodology of elaboration of reports on cash flow is applied, according to the indirect method.

CONCLUSIONS

The effectuated researches show that in 2007 the existing gap between cash flow and the obtained net financial result was caused primarily by the increase in inventories of goods and materials, which generated cash withdrawal. In the same direction has activated the repayment of loans, the reduction of short-term debts.

The negative influence of the factors named above was partially diminished as a result of collections in the form of loans and lowering short-term debts. Simultaneously, it did not allow the entity to fully offset the net flow diversion from the received financial result.

According to the noticed facts, at the enterprise was created a quite exacerbated situation as a result of operational activities is generated net cash withdrawal. The protection also in the future of the tendency of financing operational activities by attracting borrowed sources leads to insolvency of enterprises, no matter of the finding profit in the income Report.

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ANALYSIS OF ECONOMIC EFFICIENCY REGARDING FIXE USE IN „VINAR” J.S.C., LEOVA DISTRICT

Vitalie IGNAT

The Stater Agrarian University from Moldova, 44, Mircesti street, 2049, Chisinau, Republic of Moldova, tel. (+373 22 212808), gsm (+373 79 571894) liuda.c@mail.ru

Key words: *Current assets, labour means, labour items, fixed medns*

Abstract

In order to develop a common economic activity useng the labour force, one also needs means of production, which include labour means and objects. They can be obtained within the same branch or as a result of human labour, and are also called current assets.Labour means are those means of production which are used directly or indirectly to produce goods as labour tools, devices or mechanisins to store and transport labour items or to create the necessary conditions to develop a normal production process within the enterprise, such as constructions, heating ventilation and other systems. According to NAS 16 “Accounting for long term assets”, the labour means, except little value and short ferm items, are called fixed means, which, as a subject of record, represent a component of long term assets long with capital investments, land parcels and natural resources. The purpose of the accomplished analysis consists in making the economic efficiency analysis of fixed means use and pointing and the stocks of their reasonable use.

INTRODUCTION

For various economic operations the fixed assets can be classified into several groups using for this purpose the following criteria:

- According to economic destination;
- According to the way they participate in the production process;
- According to the technology of production and the functions they fulfill;
- According to the level of taxation.

The agricultural statistics establish the following categories of fixed assets: buildings and constructions, machines and installations, energy resources, livestock production and breeding, transport and communication paths, perennial plantations, technical decorations. Within the constructions the highest share is held by household structures (animal shelters, warehouses, workshops etc.) and special constructions (greenhouses, seedbeds, etc.) According to the functions that they fulfill the constructions can be classified in:

- Directly productive, in which production processes occur;
- The indirectly productive in which the activities of management, social, cultural, sporting deploy.

The ratio between these 2 groups must be in favor of the productive ones.

MATERIAL AND METHOD

In analytical practice in order to assess the economic efficiency of utilization of fixed assets, the system of indicators was applied including: The yield of fixed assets for production, the capacity of fixed assets, the size of total income in 1 lei of fixed assets of production, the profitability of fixed assets of production, etc The period of 2005-2007 was analyzed. The sources of collected data are made up of specialized forms on the activity of the agricultural enterprises, the financial report, balance sheet, profit and loss report, and the existence and motion-term assets, including material assets.

RESULTS AND DISCUSSIONS

The developing of technical and scientific progress of intensification and specialization of agricultural production is characterized by increasing the fixed assets, as well as those circulating, and the rational use of the existing production facilities. .Within the analysis of existence of fixed assets it is necessary to know

the following concepts: *input value, the balance value, revalued amount.*

Analyzing the data from Table 1 we see that the fixed assets of the enterprise are involved in the production process. In their composition the machines have the highest prevalence as well as the equipment and transmission facilities, which in 2007 compared with 2005 and 2006 had an increase in share by 0.72 and 2.75% Those fixed assets have during the last 3 years the value of buildings as well as special constructions except vehicles which have been maintained at a constant level.

Table 1 Dynamics and structure for the means of productive

| The indicators | The years | | | | | |
|---|----------------|------------------|----------------|------------------|----------------|------------------|
| | 2005 | | 2006 | | 2007 | |
| | The value, lei | The structure, % | The value, lei | The structure, % | The value, lei | The structure, % |
| Buildings | 414783 | 3,95 | 455605 | 4,39 | 500605 | 4,64 |
| Special constructions, machinery, transmission installations. | 629282 | 5,99 | 629282 | 6,06 | 766264 | 7,1 |
| Means of transport | 9036127 | 86,02 | 8857178 | 85,26 | 9100751 | 84,27 |
| Other fixed assets | 424460 | 4,04 | 446332 | 4,29 | 431502 | 3,99 |
| Total inputs | 10504652 | 100 | 10388397 | 100 | 10799122 | 100 |

The source: The financial report of JSC (Joint stock company) "Vinar"

Consequently the average annual fixed assets in 2007 increased over 2005 and 2006, corresponding with 2.8 and 3.95%. For the activity of production the enterprise requires besides fixed assets, current assets also. The current assets which are available to The JSC (Joint stock Company) "Vinar" and their dynamics is illustrated in Table 2.

Table 2 Dynamics and structure of current assets in 2005-2007

| The indicators | The years | | | | | | | |
|--------------------|----------------|------------------|----------------|------------------|----------------|------------------|------------------------------|------------|
| | 2005 | | 2006 | | 2007 | | 2007 in % in comparison with | |
| | The value, lei | The structure, % | The value, lei | The structure, % | The value, lei | The structure, % | 2005 | 2006 |
| Materials | 306847 | 6,25 | 97141 | 1,88 | 36854 | 0,33 | 12,02 | 37,94 |
| Running production | 2145894 | 45,6 | 2131549 | 41,17 | 5942663 | 53,52 | 276,9 | 278,8 |
| Goods | 111 | 0,02 | - | - | - | - | -0,53 | - |
| Short term claims | 2210215 | 46,96 | 2892296 | 55,86 | 4995539 | 44,99 | 237,86 | 172,72 |
| Currency | 36528 | 0,78 | 37774 | 0,73 | 40902 | 0,46 | 139,35 | 134,75 |
| Other active flows | 6586 | 0,12 | 18606 | 0,36 | 78517 | 0,7 | 11,9 Times | 4,23 times |
| Total active flows | 4706181 | 100 | 5177366 | 100 | 11104475 | 100 | 235,96 | 214,48 |

The source: The balance sheet of JSC "Vinar"

According to data from Table 2 it can be concluded that in 2007 in comparison with

2005 and 2006 most of the indicators that characterize our current assets raised essentially, a fact which demonstrates the substantial increase of value and their share relative to the productive fixed assets. The size and composition of the fixed assets of the company is always changing under the influence of various factors. For compiling these modifiers following table is drawn up.

Analyzing the balance of fixed assets it can be said that no essential changes in their structure occurred, there were recorded no essential increases, only a small increase at the expense of their special constructions, as the machinery, equipment and installations for transmission leading to the increase of total fixed assets by 3.95%.

Table 3 Status and flow in fixed assets in JSC "Vinar" for 2007(lei)

| Types of fixed assets | The presence of the fixed assets at the beginning of the year, lei | Annual Input | Annual function output | The presence of fixed assets at the end of the year |
|---|--|--------------|------------------------|---|
| Buildings, special constructions | 455605 | 45000 | - | 500605 |
| Machinery, equipment and facilities of transmission | 629282 | 139232 | 2250 | 766264 |
| Means of transport | 8857178 | 265421 | 21848 | 9100751 |
| Fixed assets-total | 10388397 | 468587 | 57862 | 10799122 |

The source: The financial report of JSC "Vinar"

On the basis of the data of this balance, knowing the composition, the structure and the dynamics of fixed assets we can characterize the physical condition, their changes and circumstances during the year based on the indicators mentioned in Table 4.

After examining the obtained data it can be concluded that in this enterprise are necessary investments in their fixed assets, we see their absence from the fact that the annual absolute growth rate was not recorded and the coefficient of renewal is zero. The lack of investment has influenced the coefficient of growth which denotes a motion of the size of fixed assets on the account of their removal from the use, a process reflected by the indicator with the same name presented as the coefficient. A continuing worsening of the condition of fixed assets of the company can be observed, because the wear rate is

increasing. The descending dynamic of the coefficient of the duration in the functioning of fixed assets which continues about 18 rotations (times) in one year.

Table 4 The indicators of status in traffic means of JSC"Vinar"for 2005-2007

| Indicatorii | Anii | | The deviation(+,-)in comparison with 2006 |
|---|-------|--------|---|
| | 2006 | 2007 | |
| The rate of growth of fixed assets | 0,99 | 1,04 | 0,06 |
| The rate of removal from use of fixed assets | 1,84 | 1,59 | -0,25 |
| The coefficient of wear of fixed assets | 10,36 | 47,45 | 37,09 |
| The Coefficient of using fixed assets | 64,82 | 249,36 | 184,54 |
| The coefficient of operation with fixed assets. | 25,18 | 172,13 | 146,95 |

To ensure the most efficient production activities it is necessary to ensure the most rational relation between means of production. The correlation between current assets of the company JSC(Joint Stock Company)"Vinar" can be analyzed in Table 5.

Table 5 Indicators of the optimal correlation between different groups of assets in JSC "Vinar"

| The indicators | The years | | |
|--|-----------|------|------|
| | 2005 | 2006 | 2007 |
| The rate of immobilization | 0,74 | 0,73 | 0,53 |
| The rate of current assets | 0,33 | 0,36 | 0,54 |
| The coefficient of the technological component of the enterprise | 2,23 | 2,01 | 0,97 |
| The technological composition of fixed assets | 0,86 | 0,85 | 0,84 |

Examining the obtained level of the indicators, we notice that among the assets of the enterprise the largest share comes to current assets, which during these years show a continuous increase, this situation being confirmed by the reduction of the coefficient

of technical composition. This data reports that a restraint of funds occurred.

During the analyzed period the enterprise did not acquire machinery and equipment to create its own park, a fact which has a negative influence over the optimal terms to perform the works.

An important role in enterprise's development it is not only the fact of providing means of production, but also their efficient use. The efficiency with which fixed assets are used in JSC(Joint Stock Company)"Vinar" an be analyzed according to the data illustrated in Table 6.

In the result of the analysis of the obtained data it is attested an increase in fixed assets of production on the basis of the increase of all the indicators in 2007 in comparison with 2005,2006. The best illustration comes from the efficiency in using the calculated yield of the production, which in 2007 was increased in comparison with 2006, corresponding to 20.3 and 75.8%.

Table 6 The economic efficiency of utilization of fixed assets of JSC"Vinar" in 2005-2007

| The indicators | The years | | |
|--|-----------|-------|-------|
| | 2005 | 2006 | 2007 |
| The yield on fixed assets, lei, according to: | | | |
| - production volume; | | | |
| executed works and services | 0,482 | 0,33 | 0,58 |
| -the price of the sales | 0,481 | 0,296 | 0,581 |
| -the income from sales | 0,482 | 0,33 | 0,58 |
| Fixed asset capacity, lei, according to - production volume; | | | |
| executed works and services | 2,07 | 2,98 | 1,724 |
| -the price of the sales | 2,075 | 3,37 | 1,72 |
| -the income from sales | 2,07 | 2,98 | 1,724 |
| General profitability % | -2,47 | -6,8 | -4,77 |
| Economic profitability% | -2,67 | -7,44 | -5,16 |

The fact of reducing the efficiency in using the fixed assets confirms the diminution of the general and economic profitability, which in 2005-2007 were recorded in negative sizes.

CONCLUSIONS

The researches which were held in JSC (Joint Stock Company)"Vinar" demonstrate that the value of fixed assets was increased in the last years by = 4% which is insufficient, because

the wear rate is continuously increasing, which demonstrates the decommissioning of fixed assets, which are overused and morally obsolete.

The activity of the enterprise in this period can be appreciated as unprofitable, because consumption prevails over the revenue of sales. During these years a remarkable increase in current assets was noticed, due to a better supply of the production process with seeds, spare parts, petroleum, chemical means.

In order to redress the situation we suggest:

1. In the created circumstances of great importance - the use of goods and materials which will help to increase the rotational speed of current assets;
2. The use of progressive technologies for the processing of land, the use of different types of fertilizers, more effective plant production means.

3. The increase of financial short-term investments. This type of current assets has a positive influence on the economic activity of the agricultural enterprise.

4. The purchase of equipment and machines that would ensure the execution of works, that would result in production of high quality Sustaining economic entities by providing preferential loans for the purchase of means of production, money back guarantee for the state loans, subsidies for agricultural enterprises.

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RESEARCHES REGARDING THE INFLUENCE OF CLIMATE CONDITIONS ON THE TRADE BALANCE OF ECONOMIC ENTITIES IN THE BEEKEEPING SECTOR

Marioara ILEA ¹, Cristina Bianca POCOL ²

¹University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca
3-5 Manastur, Cluj-Napoca, 400372, Romania, Phone: (00) 40 (0) 264 596 384 ext. 380
Fax. (00) 40 (0) 264 593 792 , E-mail : milea2005@yahoo.com

² University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca
3-5 Manastur, Cluj-Napoca, 400372, Romania, Phone: (00) 40 (0) 264 596 384 ext. 380
Fax. (00) 40 (0) 264 593 792 , E-mail : jp_cristina@yahoo.com

Key words: Turnover, Cash-flow, Profitability indicators, financial risk indicators, climatic factors, Beekeeping Company

Abstract

This paper is part of a study regarding the management and the administration of the economical and financial activity of the beekeeping companies; the case study was conducted at Apidava Company. The diagnosis permits to identify favourable and unfavourable factors that may affect the future activity of the company. Most of the times, the information of the financial diagnosis should be supplemented with information on the external environment of the company. All these factors influence the financial performance of the company by determining its competitiveness. The data base is extracted from the financial and accounting documents of this company and includes data from the period 2006-2009. The purpose of this research is to examine the dependency between the economical results of the beekeeping company, the technical indicators and the external factors such as climatic ones.

INTRODUCTION

Global warming has increased the frequency of extreme events, the fast alternation between heavy rain and floods, the severe heat wave and the severe drought, causing major economic and social effects. In the past decade, the periods of droughts and floods have become more frequent, with negative effects mainly on agriculture, population and ecosystems. The fact that, previous autumns of the beekeeping year are dry, influences the flora which doesn't offer optimal conditions for the secretion of nectar. In this context, the flora could not offer even maintenance for feeding bees. In such situations, appears often the necessity to feed artificially the bee families in order to ensure their survival.

MATERIAL AND METHOD

Climate changes are a reality that has enormous consequences on agriculture. In

Romania, as well as in other countries, the effects of the climate changes are represented by the decrease of water resources and by the fact that droughts become more and more frequent. Droughts and floods have significantly affected the production of honey in the last 10 years as a result of the extreme temperatures that compromised the flora.

The general information used in the present study was provided by The National Institute of Statistics, The Ministry of Agriculture and Rural Development and The European Organisation for the Exploitation of Meteorological Satellites [5]. The specific information used to demonstrate the influence of the climate conditions on the results of economic entities in the beekeeping sector, was provided by Apidava Company, one of the major Romanian honey processor [2]. The data base is extracted from the financial and accounting documents of this company and includes data from the period 2006-2009.

RESULTS AND DISCUSSIONS

Changes observed in the annual medium temperature evolution in Romania for the period 2000-2007, show that the average of annual air temperature increased by 0.5°C / country (Fig. 1).

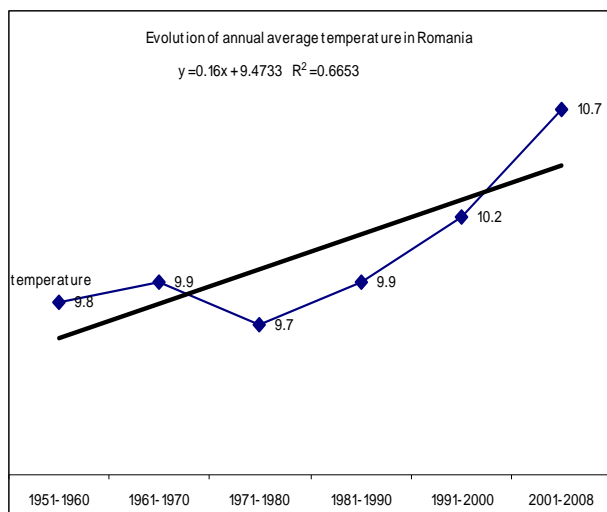


Fig. 1. Evolution of annual average temperature in Romania
 Source: own processing after data from the Eumetsat Report

Analyzing the evolution of annual precipitation amounts in Romania, it can be observed the fact that the year 2006 – 2007 was the most dry (479.2 l/mp). The year 2004 – 2005 was an excessively wet year (818.4 l/mp) (Fig.2).

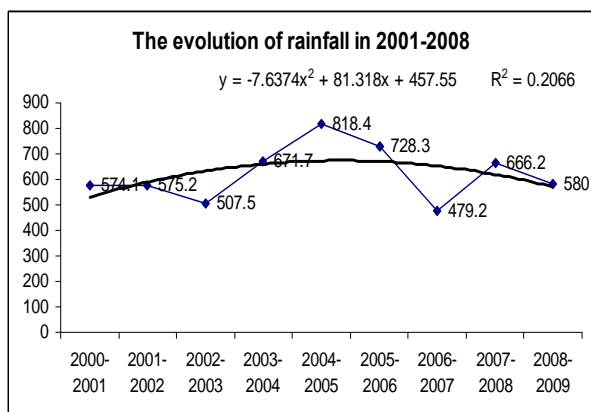


Fig. 2. Evolution of annual precipitation amounts
 Source: own processing after data from the European Organisation for the Exploitation of Meteorological Satellites, 2010

In the decade 2001-2010, the years 2000-2001, 2001-2002, 2002-2003, 2006-2007, 2008-2009 was extremely drought years that affect not only the beekeepers, but also other farmers.

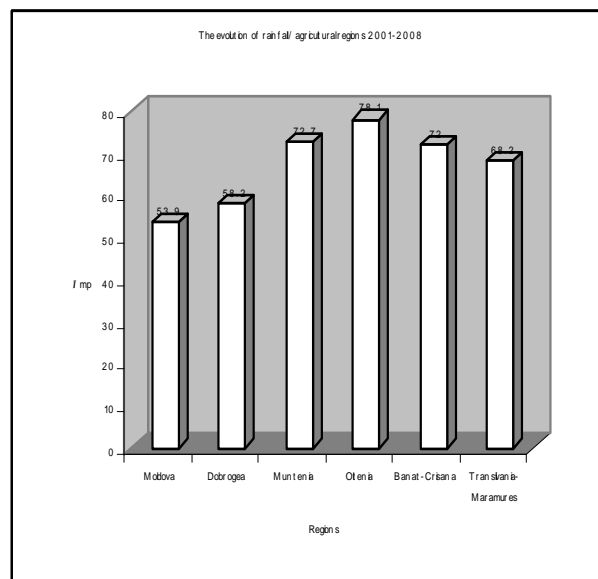


Fig. 3. The evolution of rainfall /agricultural regions 2001-2008

Source: own processing after data from the Eumetsat Report
 The rainfall deficit affected all fields, mainly agriculture, population and ecosystems.

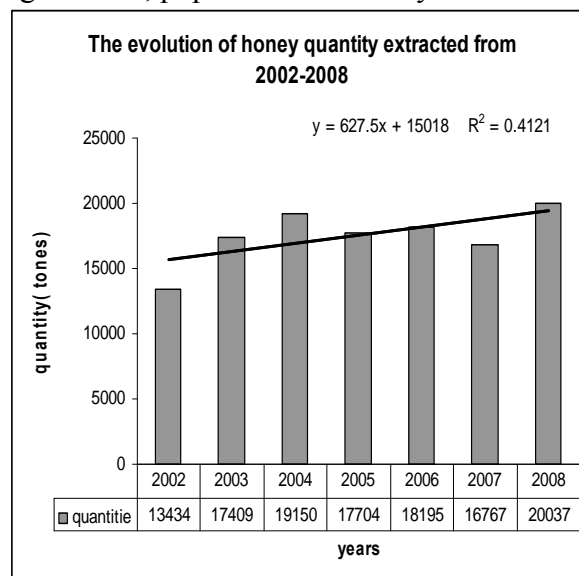


Fig. 4: Evolution of extracted honey production in the period 2002-2008

Source: own processing after data from the Statistical Yearbook of Romania, 2008 and after reports of MADR, 2009.

In 2007, Romanian beekeepers had to face an arid summer. This meteorological phenomenon affects the bees, by causing a massive depopulation and by determining beekeepers to

feed supplementary the bees. The consequences of this process could be seen in terms of costs, because these procedures required additional expenditure for beekeepers. In a normal year, the Romanian honey production is around 20,000 tonnes of honey. The largest share is the poly honey 50%, followed by acacia honey 35% and lime honey 15% [3]. Due to the unfavourable weather conditions, the honey production in Romania was poor. The poor results obtained by beekeepers influenced the processor's results. The poor production affects the consumer too, because it makes more expensive the final product. In this context, the honey prices have increased: in the case of poly honey, the price increased with 50%, from 4 to 6 lei and in the case of acacia honey the price increased from 6 to 8.5 lei.

In the study undertaken on the management of financial and economic activity at Apidava Company, it can be observed a strong correlation between indicators of climatic factors, indicators of branch beekeeping techniques, especially production of honey and financial and economic outcome expressed by turnover and net profit.

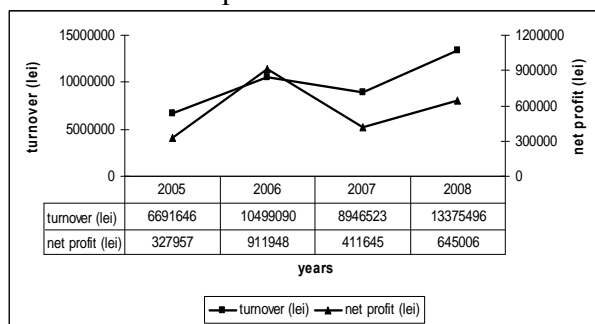


Fig. 5 . Evolution of turnover and net profit at SC Apidava SRL Blaj

Source: own processing after data from the Financial accounting documents APIDAVA Company, period 2005-2008

Reducing the quantity of honey received from beekeepers affects the results of processors in terms of turnover. Thus, in 2007, which was a dry year, the financial results of Apidava Company were lower compared to other years examined (fig. 3).

CONCLUSIONS

Problems caused by the current evolution of climatic factors are met through the whole bee chain, beginning with the producer and continuing with the processor and the consumer, the adverse effects being felt at economic, ecological but also at social level.

For these reasons management activities of apicultural entities should be based on long-term investment strategies.

1. Starting from this goal Apidava Company was directly involved in the process of training and selection of beekeepers willing to produce organic honey, by founding API Service Centre.

2. Because the need for specialists is enhanced, in the actual context of increasingly competitive economy, Apidava Company has organized training courses for beginners and experimented beekeepers, held by professionals in the field.

3. The benefits of social programs that involved this company are enormous and create a consistent image for it. It is difficult to assess this contribution in terms of money, but certainly, it can be seen when consumers choose products or services of Apidava Company.

4. Romanian Beekeeping Research was materialized in the case of this company by building on results achieved by the PhD thesis entitled "The Management and The Marketing of bee products in Romania and European Union" [1].

5. Apidava Company is able to provide biological materials with increased tolerance to the global climate changes, diverse and efficient apicultural technologies, both, for conventional and organic beekeeping.

6. It is necessary that beekeepers use and implement the results of scientific research and ensure the sustainability of bee chain regarding the economic, social and environmental issues.

ACKNOWLEDGEMENTS

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NEED FOR IMPROVEMENT OF MANAGEMENT FOR DEVELOPMENT ORGANIC FORMING

Lidia IURCHEVICI

Research Institute for Agricultural Economy and Rural Development, Bucharest
61 Mărăști, sector 1, 011464, Bucharest, Romania, Phone: +40 21 224 27 95, Fax: +40 21 224 27
95 , E-mail :

Key words: *management, ecological agriculture, human health.*

Abstract

Agriculture in Europe is at a critical stage as it tries to balance its nutritional economic and environmental demands. One of the options for the future is ecological (organic) agriculture, which emphasises sustainability, human health, biological conservation and the quality of life. Ecological agriculture is a form of applied ecology with a series of aims that need to be balanced within an agricultural context. These aims and principles need to be understood, firstly, as biological processes, but with the recognition that they are influenced by many factors that lie outside of biology such as economics, nutrition and consumer preferences.

INTRODUCTION

We definitely all agree that at this moment natural resources are limited, while needs and consumption are growing more or less exponentially. That is why quantity - quality dualism can and will become a fundamental basis for approaching this dilemma, which has large and deep ramifications in social, political and economic environment. This is the new concept, limited to minimum chemical additives (pesticides, fertilizers) to the crops. This cultivation system will result in products with no trace of chemicals, harmful both for humans and the entire areal used. Ecological agriculture involves the replacement of chemicals with biological, biodegradable and environmentally safe products. Such products have been successfully used for years, and their range keeps diversifying yearly, thanks to the research work worldwide, Romania included.

MATERIAL AND METHOD

The advantages of such organic vegetal and animal farms are various and complex from many points of view, as follows:

a) from the farm point of view:

- lower inputs and costs, which reduce current financial issues of the farmers;
- significantly larger manpower in each technological chain (considering the lack of equipment and special machines), which means larger manpower occupied in agriculture and lower unemployment, as well as professional reorientation; productions in the same quantity, but much higher quality compared to polluted/contaminated conventional ones; preservation of ecological factors and local natural resources (water, air, soil), as well as of biodiversity (an important advantage in observing the obligations resulting from the different international conventions and agreements signed by Romania regarding environment protection and biodiversity); technologies nonaggressive for the workers' health (low costs for the population employed in agriculture, as well as for the potential consumers); less energy consumers in upstream industry; integration of organic residues in the agricultural technology of field crops.
- b) from the organic product point of view:
healthy product without nitrates/nitrites or heavy metals, with major use in different treatments, either preventive or curative, including gerontology, for future generations;

significantly large export demand and prices (balance of payment compensation); higher efficiency of land improvement infrastructures.

RESULTS AND DISCUSSIONS

In any farm, water is a priority, both quantitatively and qualitatively. The latter becomes even a sine-qua-non condition in organic agriculture.

In areas with insufficient moisture, organic technologies are more profitable. Exclusion of mineral additives and wide use of organic fertilizers results in a better development of the root system and a reduced soil compactness. Consequently, soil moisture is preserved and the root system of the plants uses it better. Therefore, in dry years or dry areas, cereal, grain vegetables and technical crops are larger when organic agriculture is used, compared to traditional technologies. The use of mineral fertilizers and pesticides is connected to their penetration and their metabolic products accumulation in soil, water and sometimes in crops. Accumulation of mineral fertilizers and pesticides causes serious disorders in the physiological-biochemical balance of humans and useful organisms. Nitrite derivatives of nitrogen are especially known to cause serious damage.

Apart from reducing the intensity of many physiological biochemical processes, some pesticides also cause mutations and cancer. With organic agriculture, such negative aspects do not occur, on the contrary, the environment improves. A comparative analysis of organic and traditional technologies show that the first is the one that doesn't damage human life conditions. At the same time, biodiversity is preserved. Apart from the diversified crops, organic agriculture contributes to the conservation of wild vegetation and animals. Thus, there are 2-3 times more wild plant species and 57% more poultry species in the organic farms compared to traditional farms. Organic technologies support considerably the preservation of the structure and biological composition of the soil.

This contributes to a longer period of vegetation, conservation of humidity and an

about 85% increase in the useful microorganism number, including free nitrogen binders and symbiotic microorganisms on the root system. Consequently, biological diversity of different species of invertebrates increases, including predators and parasites which balance the density of harmful populations.

A special part play the works for soil erosion, considering organic crops and grazing under the same conditions, all being exposed to these risks – especially with intensive mechanization – and with a bad dimensioning of the equipment system and grazing plan. The development of agriculture, health, environment, manpower, education-research, trade, tourism and agritourism lead to a nature-society harmonization, and finally to the stage of sustainable agriculture.

World ecologic emergencies are connected to the climate change, to deforestation and infestation of soil with highly remanent chemical residues. Protection of vegetation and animals, conservation of biodiversity by creating and maintaining gene banks should also become a priority, although it is a long term objective. Solutions? Theoretically, they are simple, but besides the purely scientific side, political and social involvement are also necessary. In a world ruled by large corporations, it is difficult to approach the decision makers regarding highly polluting industries and large intensive farms without facing mercantilism and sometimes pathological greediness. Persons of high conscience have already approached these fields through voluntariate and numerous sacrifices. Thus, Romania is the first country in the world where a mountain of useless rock was stabilized by planting locust trees. Conservation of national parks is made through the work of many people, who do it not for the little money but out of passion. Cleaning and ecologic care of tourist areas is the result of the hard work of enthusiastic young people, a field where many non-government organizations are involved. Of course, their reward is only a moral one. Where does organic agriculture come in? Apart from the facts mentioned above, this type of culture comes to correct environment issues generated by intensive agricultural system. Organic agriculture doesn't involve a large area. On the

contrary, anyone with minimum knowledge in the field and a reasonable land area can be a breakthrough in our country. Profit doesn't come immediately, but only in a few years (5 years is a personal estimate, considering a properly developed organic farm). Organic agriculture – unpolluted and nonpolluting agriculture – takes place in farms with minimum inputs, environment friendly technologies, no pesticides, fertilizers or other chemicals being used. The latter restriction refers both to the entire agricultural year of the conversion period and the technological chain, from crop preparation through agri-phyto-pedo-hydro-improving measures, specific crop technologies, harvesting, transport, storage, processing (if the case) up to packing/labelling and marketing. Another advantage is connected to the fact that organic agriculture ensures higher security to bad climate conditions. According to Rodale Institute in Pennsylvania, land worked organically has better resistance to bad weather (drought and heavy rain) than land cultivated in a conventional way. Institute of Science in Society (USA) published in January a study performed by Rodale Institute which compares for 23 years the agronomical results of three types of plots: short ecological rotations, long ecological rotations, conventional rotations (agriculture with the use of chemicals). The five years of drought in the beginning of the study allowed the researchers to establish that most plots cultivated in ecological system had better yields than those cultivated in conventional system. Organic agriculture can meet the demand of world population. In some regions, outputs from organic sectors are higher or equal to those obtained through conventional agriculture. As for energy consumption, biological agriculture uses only 1/3 of the total energy used in chemical agriculture.

Despite all these, economic and competition pressure is high enough to prevent biological agriculture from being a priority for the farmers. However, there is a powerful public opinion in Europe in favor of ecological products, to the detriment of those chemically treated or genetically modified. There is a high number of European consumers who prefer to buy them at a high price, aware they are healthier compared to the products obtained in an intensive system. If

this kind of demand increases, it is possible that farmers turn back to organic agriculture.

During the latest years, aware of the more and more dangerous effects of chemification on agriculture, EU member states took measures to ensure the safety of agricultural and food products. According to CEE No.2029/1999, these measures do not oppose to the modernization of Community's intensive agriculture, but impose a new concept and a new system for the resources and quality management. If organic agriculture is to be applied, this scenario should take into account that in the current stage of agriculture development total replacement of external inputs with natural resources and mechanisms for agri-ecosystem adjustment is neither realistic, nor possible. The best choice would be a compromise solution, by encouraging both types of agriculture, mostly the technologies reducing the dependence of yields on the pesticide amount. Among the measures included in the plan entitled "New changes in agricultural process" we mention: reduction of pesticide product from 800 to 200 during the following 5 years, accompanied by a lower number of treatments; reintroduction of 4-5 plants cropping system; reduction of fertilizer doses and plants' higher use of nutrients; reduction of yields to around 6,000 kg for wheat and corn. In the case of underdeveloped and developing countries, food insecurity has other causes: frequent and intensive pollution with pesticides and fertilizers (wrong choice of product, wrong doses, inappropriate treatments etc); use of highly productive varieties, but sensitive to diseases and pests; without proper protection measures, serious mycotoxin pollution occurs, much more dangerous than the one caused by pesticide residues.

In May 2002 the European Parliament requested the European Commission to issue a directive as a basis for a program of reevaluation and reduction of pesticide use (those authorized and certified before 1993); all these pesticides should be reanalyzed with new testing methods regarding their toxicity and impact on environment. More than 800 active ingredients having 2008 as deadline will be reevaluated.

Organic production is obtained in farms, individual households, family associations and,

in rare cases, in large associations, agricultural and agri-industrial companies or holdings. Organic products are also obtained in water, forests and other natural systems. Organic farms and agri-industrial units meet the location and production requirements regarding environment quality and protection and they usually have small or medium size. Most of these farms cover small areas of 5-50 ha. Sometimes the area of the organic farm is even below 5 ha when there is little agricultural land available, economic and manpower potential is low and the agricultural systems are either intensive (green houses, solariums, mushroom farms, vegetable farms, flower farms, orchards or vineyards) or special (silkworm farms, snail farms, ostrich farms etc). Organic farms can be larger than 50 ha, sometimes reaching 1,000-2,000 ha in regions with much land and big technological potential. All farms and agricultural, agri-industrial and commercial ecological companies experience a longer or shorter conversion period, which is equal to the time between the beginning of the ecological management and the certification as ecological farm or company. Certification is made by a national or international organization acknowledged by the International Accrediting Service of the International Federation of Organic Agriculture Movement (IFOAM), which is empowered to evaluate and guarantee in writing that the production or processing process complies organic agriculture requirements. Conventional agriculture changes into an organic one step by step, so that economic structures are not affected by the lower productivity and the farmers to start trusting the new systems. Certification is made as soon as the entire farm meets the ecological standards. Sector certification takes place on condition that the two systems (conventional and ecological) are clearly separated both in documents and in productive activity.

Agri-ecological technologies combine traditional cropping methods, animal breeding and product processing with modern, highly technical means, such as simplified and automatic cropping systems or complete simulation and analysis models.

Seed, planting material and breeding animals are ecologically certified, so they are produced either in the same farm, or in specialized farms

and societies. Nourishment for plants and animals is as natural as possible, complete, healthy, biodegradable and does not surpass their needs. Nourishment system excludes contamination of the environment with nutrients (nitrates, phosphor) and heavy metals, as well as the use of mineral substances produced industrially, except for those allowed through internal and international norms and includes the obligation of returning to the soil any organic biodegradable product which was not used or is in excess.

Ecological vegetal and animal systems experience only little damage from weeds, diseases, insects and other pests due to permanent preventive activities and non-toxic curative measures. The effects of ecological technologies are numerous, long lasting and occur later (for instance, seed and seedling treatment with biological products is made to increase the number and activity of soil microorganisms, to improve soil nutritive value and to prevent disease and pest attack).

CONCLUSION

Processing of organic agricultural products is made mechanically, physically or biologically, maintaining as much as possible their quality, structural integrity, under perfect hygienic conditions. Raw material and ingredients used in the processing process are ecologically certified. Organic agricultural and agri-industrial products are stored separately from non-organic products. Organic products are packed in biodegradable materials which do not contaminate either the products or the environment.

Transport of ecological products or animals is made with minimum losses and on short distances. Organic products are labelled and/or accompanied by a document comprising the name of the product, the name and address of the producer, the name of the certifying company, the producing or processing methods and the note "Certified organic product". The label will also contain product composition, including the ingredients, additives when necessary, as well as validity term. Ecologic harvests are 10-30% more expensive compared to traditional ones. Lower harvests and economic efficiency are compensated by the

increased quality and stability of organic products. Work on an organic farm or agri-industrial company is exciting and stimulating and it is based on systemic analysis and innovative rational-scientific decisions.

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THE INDICATORS USED IN ANALYSIS OF FARM PROFITABILITY

Teodora IVASCU

Institute of Research in Agrarian Economics and Rural Development
61, Marasti, 011464, Bucharest, Romania, 0040213184357, teodoraivascu@yahoo.com

Key words: *holdings, profitability indicators, production structure*

Abstract:

The farms have held primary and secondary processes with major implications in the management and organization of the agricultural unit. Here, technological processes are intertwined with the biological, which gives a fundamental feature, which must be taken into account in economic and financial decisions and the fiscal policy adopted. It should also be considered and factors of risk and uncertainty that is manifested in agriculture in the natural - drought, floods, frost, disease, pests, and the predictable - soil, terrain, climate, resulting in a significant action the output produced, but variable depending on the nature of production. Production technology, ensure the circumstances, obtain higher crop production with minimal costs. New technologies must ensure Lots obtaining products in high, clean, quality. Thus, profitability may finally be known only after completion of production, respective after the calculation.

INTRODUCTION

Unlike industry, the agricultural production process, specific factors involved, which causes particularly in their use of labor, means of production and labor items. Thus, the characteristics of the formation, existence and development of specific factors that affect the process of agricultural production-land, plants, animals, soil and climate conditions - print special features in the development strategy but also in the processes of the two sides: technological and economic, resulting in some features with implications for economic analysis methodology.

MATERIAL AND METHOD

To acquire an overall picture of the situation profitability of farms, the system considers the following indicators:

- Net profit and net rate of return of total farm work;
- Gross profit and gross rate of return types of operations (operating activities, financial and exceptional);
- Gross profit and gross rate of return on various products.

Under this system of indicators can identify organizational structures, business areas and products where a bad dynamic in profitability

or a positive dynamic but not up to the level of competitiveness required by domestic and foreign markets, giving the possibility of taking measures to increase the profitability of all financial and economic activities to a higher level.

RESULTS AND DISCUSSIONS

In accordance with the annual planning system and economic and financial records, profitability indicators can be grouped as follows:

1.Indicatori that reflect net farm profitability. They allow an analysis of profitability only in the total activity of the unit:

- Net income calculated as the difference between gross profit and income tax. He remains in the economic unit to be allocated as intended provided;

- The rate of return net of total farm work, which is determined by the resources consumed (total expenditure), the income from the total activity and the inputs considered the effort (labor, land fund, assets, current assets capital).

2.Indicatori reflecting gross farm profitability. They allow an analysis of profitability of both the total activity of the unit and the types of activities or the whole succession of organizational structures, and each product:

- gross profit calculated as the difference between total revenue and total expenditure (not including income tax unit);

- gross rate of return calculated as the ratio between gross profit and various resources taken into account (including income unit).

The calculation of the profitability of economic indicators still show many deficiencies in the agricultural companies in Romania. This can be illustrated by the following aspects:

- In the farms still manifests a real disregard for determining profitability;

- Currently, due to weaknesses in the accounts, lack of statistical data in most manufacturing companies.

Should therefore be under the operational and accounting data, calculation of indicators to obtain an overall picture on this issue for management companies and hence the profitability analysis in the face of provisions and the dynamic;

The notion that there are still important is the amount produced, to her immediate recovery and achieve a profit as high, whether or not it is obtained under conditions of return. Next, will be presented features cost-effectiveness analysis of agricultural holdings.

Earth - the agricultural production - has character input especially what gives exceptional importance. Economic activity in agriculture is directly and indirectly related to land, as the main means of production, different production potential in relation to different areas, affecting production per unit area, nature and the allocation of production factors, product. Compared with other means of production, land has a number of features that give them a specific role in agricultural production:

- Is a factor of production hardly replaced;

- Is limited in scope but not limited to productive power the ability to increase fertility through investment.

- Can not be replicated and is irreplaceable for agriculture;

- As a means of production can not move, which prints the agricultural process and dependence of a given area of a given organizational structure of production;

- Rational use, land not wear out but improves its productive power.

Earth can be used intensively and extensively, reserves increase profitability depends on production volume aimed decisive proportion of intensive face limits, however, required the new concept of sustainable development. It is also necessary to use cost-effectiveness analysis of the indicator "benefit at 100 meters", he is the main means of agricultural production.

Ground rent is the net income created in agriculture where land remunerated factor. The calculation of land rent is necessary for calculating the lease (land factor cost) for calculating agricultural tax and to base policies to support farm income.

Interdependencies between price, cost, profit and rent are very close. Without economic calculation for each category listed, you can not determine the level of the other. Economic assessment of land included in farm assets is necessary to calculate depreciation and the cost of its inclusion, however influencing farm profitability (price of land is directly proportional to the profit per hectare and in inverse proportion to the interest rate). For modern management, buying, renting, leasing or renting land is the subject of economic analysis and must be assessed by production costs that they generate long-term.

Capital of Agriculture has numerous features and peculiarities, which must take into account profitability analysis in making and implementing decisions. Fixed capital (it is three forms of data: land, machinery, livestock breeding and employment) has long used and is limited. It also has a patchiness in space and the types of agricultural units. Working capital is used in a production cycle can be treated as intermediate consumption (seeds, planting material, feed, fertilizer, chemicals, water, livestock production). Features of the differentiated approach and its component elements is the importance of increasing its rotational speed and the appropriations necessary to obtain a unit of value added. The structure of production - material support of the economic structure - is expressed by the proportions of production costs resulting from the combination and the combination of branches, particularly the proportions of fixed and variable costs and the impact of farm scale

on revenue or profit. Production structure can be:

-Extensive(characterized by the predominance of cereal crops in the area planted and crop production and other goods which exploit low-earth) - which leads to increase its holdings to achieve high income areas;

-Intensive (characterized by high share of livestock in total agricultural production or by the large share of intensive crops in vegetable production) - in this case resulting in large profits by increasing the allocation of variable factors per hectare and per animal.

The process of organization of new production structures in our country is made uneven in time and space, the forms and types of agricultural establishments: by industry or product, organizational levels (farm, farm sector), the phases of the process technology and expertise zonal. Along with deepening specialization occurs diversifying the specialized units, not only by industry or product but also the phases of the technological flow.

Profile of a business complex agricultural (plant, animal husbandry and industrial) and the organizational structure of these units (farms and fields, departments, etc..) Are necessary to follow the contribution of each branch of production and organizational links to the formation of enterprise profitability.

Reserve growth and profitability depend on the total enterprise of rational profiling and specialization of the unit, especially the harmonious blending of crop production with animal health. Structural interdependencies influenced by the random nature of agricultural production and the specific impacts of resource use in the context of increased competition, requiring systemic approach to structural elements of the agricultural enterprise in order to identify optimal solutions operating in free market conditions.

The original production is not only code but also because of the random each agricultural unit of agricultural production, the need to maintain biological balance, natural conditions and economic diversity. As a result, resource management, agricultural products takes features from other sectors and requires case by case approach.

Choice of production system underlying programming production process in all phases of its components. Making a favorable structure of production goods by consignee, delivery periods and categories of quality and delivery to the state stock, the per hectare and head of a large production quantities as the average producer price increases as reserves to increase the profitability of commodity products.

Farm work occupies an important place in agricultural production, the determining factor for the capital, land and operating capital. The economic importance of living labor resulting from the fact that it holds in a high proportion of farm production expenses (up to 25% depending on species, culture, system growth), bringing social issues especially in family households, which represents an expense Fixed unpaid.

Corresponding forms of involvement of the monthly cost of gain and other main indicators, production and gross value added in agriculture are essential, because it is the main element that makes the very quality of life. The monthly cost of labor affects inversely both total production and gross value added in agriculture.

Working in agriculture has technical characteristics, economic and social variables in the complexity and intensity as:

- Varies over time due to climatic conditions and biological factors, which generates a series of consequences on the level of labor employment and timing of agricultural operations especially in the plant;

- Working conditions in agriculture are difficult, wages can not express enough the efforts of farmers;

- Because human behavior can not be included in the scheme strictly logical and rational, quality and structure of human factor prevail on its quantity.

Long production cycles (during its production is ten times higher than other industries), the influence of natural conditions, seasonal use of natural and human resources, due to the disparity between working time and production time required in the dynamic tracking profitability.

Finished products in stock at the end of the destination to be delivered, is included in total revenues, affect the total return (causing an

increase in the benefit of total activity). Profitability may be finally known only after completion of production, after the calculation.

CONCLUSIONS

1. Agricultural units held in primary and secondary processes with major implications in the management and organization of agricultural unit. Here, technological processes are intertwined with the biological, even overlap, which gives a fundamental feature, which must be taken into account in economic and financial decisions and the fiscal policy adopted. Thus, working with living organisms, which multiply, develop and produce the result of biological changes over time to recover expenses incurred by them much later, with the recovery and marketing of production.

2. It should also be considered and factors of risk and uncertainty that is manifested in agriculture in the natural - drought, floods, frost, disease, pests, and the predictable - soil, terrain, climate, resulting in a significant action the output produced, but variable depending on the nature of production.

3. A large part of agricultural activity and the volume of expenditure have a transport and surveillance activities, due to the large distance running and the need repetition of the same area.

4. Production technology, ensure the circumstances, obtain higher crop production with minimum cost. New technologies must ensure lots obtaining products in high, clean, high quality, cheap.

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STUDIES ON THE DYNAMICS OF LIVESTOCK PRODUCTION IN ROMANIA

Claudia LEPĂDATU

Research Institute for Agricultural Economy and Rural Development, Bucharest
61 Mărăști, sector 1, 011464, Bucharest, Romania, Phone: +40 21 224 27 95, Fax: +40 21 224 27 95 , E-mail : claudialepadatu2005@yahoo.com

Key words: zootechnical production, herds of animals, agriculture

Abstract

In the agricultural production in our country, zootechnics currently holds second place. For the future, provided that the share of livestock production to exceed 50% of the total production achieved in the sphere of agriculture.

Expanding livestock production is necessary for several reasons, some of which are generally valid for all forms of ownership, while others require especially in private family holdings. Livestock industries provide higher quality food as compared with those of plant origin, they are characterized by higher energy value per unit weight and volume, high quality protein and raw materials as very valuable for manufacturing industries (food, light)

In the present paper we analyzed the dynamics of livestock production in Romania, finding that the livestock were negative trends characterized by a reduction of livestock with impact on animal production.

INTRODUCTION

Livestock sector development, modernization and organization of scientific production includes animals with the growth of the new ownership structure.

Expansion and strengthening of private property in family farms and businesses that will focus associative areas and resources important technical materials, and will boot the adoption of scientific technologies and systems of farming based on the structure of production, agricultural area and individual character or private associative unity, existing capital.

Already before 1989, five each in Directives was drawn primarily to increase the share of livestock sector in total agricultural production at least 50%. This standard was never , even now, can be seen.

MATERIAL AND METHOD

In this paper we analyzed the problems faced by the livestock . Issues pursued in this paper are following :developments in the number of animals existing in Romania and the evolution of the structure of agricultural production in the paper 1990 to 2006.

The information required zootechnical production analysis we obtained from the National Institute of Statistics.

RESULTS AND DISCUSSIONS

A second component of agricultural production is represented by animal production. If the plant is not as I should, we see the problems that are faced by the livestock.

Table 1 .Numer of animals in Romania thousand

| Year | Cattle | Pigs | Sheep | Goats | Hores | Poultry |
|-------------------|--------------|--------------|--------------|--------------|---------------|--------------|
| 1990 | 6291 | 11671 | 15435 | 1017 | 663 | 113968 |
| 1991 | 5381 | 12003 | 14062 | 1005 | 670 | 121379 |
| 1992 | 4355 | 10954 | 13879 | 954 | 749 | 106032 |
| 1993 | 3683 | 9852 | 12079 | 805 | 721 | 87725 |
| 1994 | 3597 | 9262 | 11499 | 776 | 751 | 76532 |
| 1995 | 3481 | 7758 | 10897 | 745 | 784 | 70157 |
| 1996 | 3496 | 7960 | 10381 | 705 | 806 | 80524 |
| 1997 | 3435 | 8235 | 9663 | 654 | 816 | 78478 |
| 1998 | 3235 | 7097 | 8937 | 610 | 822 | 66620 |
| 1999 | 3143 | 7194 | 8409 | 585 | 839 | 69480 |
| 2000 | 3051 | 5848 | 8121 | 558 | 858 | 69143 |
| 2001 | 2870 | 4797 | 7657 | 538 | 865 | 70076 |
| 2002 | 2800 | 4447 | 7251 | 525 | 860 | 71413 |
| 2003 | 2878 | 5058 | 7312 | 633 | 879 | 77379 |
| 2004 | 2808 | 6495 | 7425 | 661 | 840 | 87014 |
| 2005 | 2862 | 6622 | 7611 | 687 | 834 | 86552 |
| 2006 | 2934 | 6815 | 7678 | 727 | 805 | 84990 |
| 2006/1990% | 46,63 | 58,39 | 49,74 | 71,48 | 121,41 | 74,57 |

In order to do this analysis should , first, to see which was the number of animal evolution of Romania during 1990-2006.

This is shown in table, from which we find that the livestock sector were negative trends characterized by a reduction of livestock with an impact on animal productions.

Herds of cattle in Romania have dropped continuously, reaching in 2006 to 46, 63% of the total number existing in 1990 because of the abolition of cooperative units of state. Today, almost 100% of the cattle herd is in private ownership.

Total swine herds in the period 1990-2006 showed a dramatic decrease of 11,671 thousand head in 1990 to 6,815 million head in 2006, so at 58,39%. Reduction has been continuing on the meaning and rhythm of development until the year 2002 as in 2006 to record a slight increase.

From the analysis made and we find that sheep was a drastic reduction of herds. In 1990 the total number of sheep was 15435 thousand head for 2006 to drop to 7678 thousand head, respectively 49,74%. Reduced number of sheep was due in particular a reduction of foreign trade of Romania with consuming meat of sheep, on the one hand and decreasing the demand for wool processing industries on the other. A less pronounced decrease was recorded in goat species (at 71.48%).

Due to the disappearance of large industrial complex to increase the birds, their number started to decrease continuously until 2000 (at 60.66% of the herd 1990), and after this year recorded a slight increase to reach in 2006 to 74.57% of the number existing in 1990.

The only species which were not recorded decreases of total staff, by contrast was a significant increase, the species is horse, which actually came in 2006 at 121.41%. If the number of animals has decreased continuously during the analysis we present the dynamics of their production environments.

Relationship between agricultural production and animal and plant weight that occupies each of the two components of agricultural production in the total production is very important indicator for the quality work done.

Such, any economic system in the agricultural share of livestock production in the

agricultural production is an indicator for assessing the degree of intensity agricultural output, the level of development of agriculture. In the table 2. developments show the structure of agricultural productions in Romania in the 1990-2006 period analyzed.

Table 2. The structure of agricultural production of agricultural goods and services (1990-2006)

| Specification | 1990 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------|------|------|------|------|------|------|------|------|
| Overall | 100 | 100 | 100 | 100 | 100 | 100 | - | - |
| - vegetal | 53,0 | 61,2 | 62,8 | 57,3 | 64,2 | 68,9 | 60,1 | 61,9 |
| -animal | 47,0 | 37,1 | 36,1 | 41,6 | 34,9 | 30,4 | 39,1 | 37,9 |
| -agricultural services | - | 1,2 | 1,1 | 1,1 | 0,9 | 0,7 | 0,8 | 0,9 |

Throughout the country agricultural production has not improved much in terms of structure,

particularly because livestock sector whose total weight is reduced.

In 1990 crop production accounted for 53.0% while animal production constituted 47.0% of total agricultural production.

The large share of global production animals has always wanted to be more than 50%, “desire” to which there was not enough today.

CONCLUSIONS

In conclusion, we can say with certainty that agricultural production in Romania is optimally structured it along with others is one of causes of low profitability of agricultural production.

It is necessary to convert a part of the largest production plant for animal products, marking it a safe and economical way to increase the profitability of agricultural production in general.

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WAYS TO PENETRATE ON THE FOREIGN MARKET

Aurelia LITVIN, Veronica PRISACARU.

State Agrarian University of Moldova, 44 Mircești street, Chișinău, Republic of Moldova, postal code 2049, Telephone:(+ 373) 22 432 432, E-mail: aurelia_litvin@mail.ru

Key words: market, export, market prospect, export promotion.

Abstract

The paper aimed to present the answers to the following questions: What is the present situation on the agricultural production market of the European Union? What are the prevailing tendencies? What are the key factors? The answers to these questions would considerably help local producers in organizing and promoting the agricultural production export on the European markets. The basic results of this investigation consist in elucidating the main stages of the foreign market prospects connected with the agro-alimentary production export. Export promotion has to become the main priority in the country's social and economic development. Liberalization and promotion of the export sector would create new work places, stimulate investments, enhance the scientific and technological level, increase the productivity and efficiency, facts that would lead to the creation of Moldovan products competitive on world's markets. In conclusion we'd like to mention that market promotion has to be considered as a key to balance the scales of payments, to create new products, to introduce new technologies, to develop services etc.

INTRODUCTION

The Republic of Moldova is predominantly an agrarian country with longstanding already formed traditions and a structure of producing agricultural products. That's why we can affirm that the basis of country's potential export is represented by the products of agro-industrial complex. One of the most profitable commodity markets for the Republic of Moldova are those of the European countries. Not only because the marketing prices are higher there. But even the fact that the penetration on the one of the biggest and richest world markets, where quality requirements are quite high, can serve as a "visiting card" for any merchandise. This fact, to some extent, facilitates and offer additional possibilities in the process of products promotion on other markets.

MATERIAL AND METHOD

During the investigation there were used such research methods as: analysis, monographic, statistic as well as other methods and procedures that allowed to reveal the essence of the investigated problem.

RESULTS AND DISCUSSIONS

It is absolutely obvious the urgent necessity to diversity the whole range of the exported products and the commodity markets. Country's durable development depends on the ability to develop these fields of the economic activity, where the Republic of Moldova has or can have a high exporting potential. The economic stability of the Republic of Moldova, as well as the decrease of the deep crisis through which the Republic is passing at the moment, can be guaranteed only by the existence of an efficient agro-alimentary and industrial sector, that would be able to ensure the competitiveness of Moldavian products on all the markets, and , as a consequence it would increase the number of manpower implied in the production process and would reduce the number of unemployed workers, fact that finally would influence the development of country's prosperity.

The fact that, up to the present, Moldova's export is oriented to certain markets generates a situation of risk and security. Thus, in 1998, more than 53% of Moldova's export was oriented towards Russia. The devaluation of Russian currency (rouble) and the financial crisis from this country represented the main cause of the deep financial crisis that affected

the Republic of Moldova and that led to a lack of competitiveness of Moldavian products on the Russian market, as well as to difficulties concerning repatriation of the money resources issued from the exports in Russia. In that period, as a result of this disastrous situation, a great number of Moldova's enterprises declared them bankrupt and the economic situation has considerably worsened.

What is the present situation on the agricultural production market of the European Union? What are the prevailing tendencies? What are the key factors? The answers to these questions would considerably help local producers in organizing and promoting the agricultural production export on the European markets.

Discussing about the European Union markets, from the point of view of Moldova's export sector potential, it is necessary to take into consideration the following aspects. Besides the unique national agrarian policy, European Union and particularly its members have concluded a list of multilateral agreements which offer certain privileges for the foreign commerce. But in the case of exporting an analogue production, Moldova is less advantaged in comparison with the providers from that country. That's why it is very important that Moldova's policy regarding foreign economic relations would be focused on insuring an effective functioning of the juridical basis.

Export promotion has to become a major priority in order to achieve country's social and economic development. Export's liberalization and promotion will create new work places, stimulate investments, enhance the scientific and technological levels, increase the productivity and efficiency, facts that will lead to the production of internationally competitive Moldovan products.[2] Export promotion should be considered as a key to balance the scales of payments, to create new products, to introduce new technologies, to develop services. Foreign market prospects concerning production export suppose to go over the following stages:[2]

Stage 1 refers to documentation and information.

Stage 2 refers to the study of the opportunities offered by the foreign market and to the analysis of the main economic indices.

Stage 3 implies the so-called study of the foreign market.

Stage 4 is meant to draw conclusions regarding the studied foreign market.

Stage 5, within this stage the study of foreign market ends by drawing the adequate conclusions and establishing the objectives for exportable products marketing as well as the forms of sales organization.

It is very important to bear in mind that the penetration of an enterprise on the foreign market is accompanied by difficulties caused by the existence of the international competition, which ensures consumers' possibility to choose the desired product from a variety of goods that may be compared in price and quality.

In the conditions of modern market economy, the practice of informing clients about new products had improved and the establishment of informational links between producers and clients became an objective necessity. The economic agents find it very difficult to find out themselves about goods on the market, the sources where they can purchase them and if these goods meet their requirements of quality and taste. That's why permanent products promotion became a major requirement, a factor accompanying any sale process regardless of the nature of the offered product. One can affirm that a new product, an adequate distribution channel, a suitable price can't ensure product's success unless the program regarding marketing operations of the enterprise doesn't include a sustained promotional policy meant to develop its second stage.

In the context of the accomplished investigations we agreed on the following definition for the term of promotion: totality of means and methods used for orienting and informing the potential clients on the new improvements or products beginning from the idea of a new product and till its launching in production and on the market; development of a positive attitude towards the product, at the same time determining advantageous changes in consumers' compartment; clients' attraction as much as possible close to sale places in order to satisfy the superior conditions for

consumption needs and ensuring a high efficiency.

Promotional activities imply a continuous change of information between companies and potential clients within a system of communications. This system contains 4 basic elements:

- source of informations (producing enterprise, commercial unit);
- message (the idea that will be spread);
- vector (message support till the receptor, and of course the means through which the information will be spread);
- addressee (consumer, user, distributor).

Irrational use of the promotional tools can cause high expenses that couldn't be recovered from its effects, i.e. from sale. A way to avoid these negative effects is the design of a promoting program. It should be mentioned that this promoting program on the foreign market isn't similar to the one designed for national market, and it depends on the information obtained from the analysis of a certain market.

An essential model of the promotion program for the foreign market can be represented broadly (because it can change depending on the market) in the following way:

1. discovering the potential clients,
2. preparing the adequate documentation (bill sticking, booklets, etc.),
3. advertising: announcements, articles,
4. participating in specialized markets and exhibitions in a certain country,
5. regular broadcastings and radio programmes,
6. advertising announcements in the cinemas ,
7. launching offers for the enterprises which were discovered in prior activities,
8. organizing a personal exhibition ,
9. offering short term samples for testing,
10. visiting clients
11. inviting foreign important clients,
12. material motivation of the clients, when sales have reached an optimum point or the circumstances require it, the company should confer bonus, different facilities, sale, etc.

The process of markets globalization and the increase of world commerce liberalization confirmed also by the concluding of many international agreements, determine a serious competition between the industrialized

countries as well as between the developing countries and those having a transition economy. Nowadays, these industries cope not only with the competition for export but also with the competition on national markets. In order to survive in these conditions of competition one should take into consideration the competitiveness. And the competitiveness on the market is based on three main elements: quality of services and goods, their price and delivery terms. This is the main reason why the quality is worth a special attention from commercial and industrial sectors of the world countries, by promoting some ideas and systems that would enable companies to improve the quality of their products and services, being preoccupied at the same time with costs reducing.

One of the main branches of the economy of the Republic of Moldova, that holds about 20-25% from industrial production and a weight of about 30% in the total volume of country's exports, is represented by the wine growing industry.[1] Taking into consideration these facts and also the situation that in the Republic of Moldova only 8-10% from the wine growing production is commercialized, we consider that the increase of wine growing products export can be achieved only by the increase of their quality.

CONCLUSIONS

The accomplished investigations proved that local wine growing production which is exported on the foreign markets is not as qualitative as it could be. It is the consequence of some economic reforms specific to the transition period towards market economy when considerable quantities of alcoholic drinks of low quality have been exported thus prejudiced against the image of the Republic of Moldova.

As a result, a difficult situation emerged that harmed the activity of the winemakers from the Republic of Moldova : the demand for our production decreased, the volume of the exported production was reduced too in comparison with country's potential, many other difficulties appeared connected with the promotion of local wine growing production on

the new markets. All these impediments could be avoided, at least partially, by optimizing the balance between quality and price.

ACKNOWLEDGEMENTS

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ORGANIZATIONAL MEASURES FOR THE EXPORT PROMOTION

Aurelia LITVIN¹, Nina PUȚUNTEAN¹.

¹State Agrarian University of Moldova, 44 Mircești street, Chișinău, Republic of Moldova, postal code 2049, Telephone:(+ 373) 22 432 432, E-mail: aurelia_litvin@mail.ru, (+ 373) 22 432 569, E-mail: ninaputuntean@yahoo.com

Key words: *strategy, export promotion, organizational measures, export.*

Abstract

Because of the limited capacity of Moldova's national market, and lack of energetic and other resources, the economic development of the Republic of Moldova decisively depends on the position and efficiency of the foreign economic relations and on its possibilities to increase the export. According to the promotion strategy of goods' export from the Republic of Moldova we propose the following organizational measures for the next years: (1)The determination of the prioritized branches for export development;(2)The improvement of goods quality. (3)The formation of the institutional and informational framework for export promotion.(4)The creation of a juridical framework.(5)The development of the commercial network promotion abroad.(6)Staff schooling and training.(7)Measures and ways to finance and stimulate the export.We consider that these measures will stimulate the growth of the agro-alimentary products export and of course that this list can be completed.

INTRODUCTION

Because of the limited capacity of Moldova's national market, the lack of energetic and other resources, the economic development of the Republic of Moldova decisively depends on the position and efficiency of the foreign economic relations and on its possibilities to increase the export.

It goes without saying that at least for a short period of time our country's economy will continue to stake on the traditional export products like wine, tobacco and other few products from fruits and vegetables. This fact will inevitably create certain difficulties, due to the strong position of the EU agricultural producers regarding these products, but it is also necessary to raise this problem within bilateral and multilateral negotiations.

MATERIAL AND METHOD

During the investigation there were used such research methods as: analysis, monographic, statistic as well as other methods and procedures that allowed to reveal the essence of the investigated problem.

RESULTS AND DISCUSSIONS

Moldova has exceptional resources that are highly favourable to agricultural production.

Its black, fertile soil is ideal for growing corn, fruit and vegetables. Because of its geographic location the country enjoys a moderate continental climate – short and relatively warm winters and long hot summers – so that early crops can be grown, giving producers a strong competitive advantage. Additionally, Moldova's farmers have long experience and broad knowledge in a wide variety of agricultural activities.

These factors, combined with an affordable labour force, make possible the production of high-yield, labour-intensive crops that are competitive in export market. The sector also benefits from Moldova' scientific research institutes whose knowledge and expertise strongly support agricultural development. And to further enable agriculture to develop to its full potential, Government policies in recent years have strongly supported private land ownership.

Agro-industrial activity currently accounts for about 30% of GDP. Food processing is a major industry accounting for 43,5% of industrial output and more than two thirds of

exports, and – importantly – is based on local food processing industries have been major suppliers to the huge markets of the Soviet Union. Moldova has 27 canneries, 9 sugar mills, 9 large meat-processing plants and many small and medium scale processing plants. After privatization in the late 90's, many enterprises modernized their equipment, organization, management, raw material supply and trade channels. Many of them now have significant development potential.

A major objective in the promotion of goods' export consists in the reconsolidation of state's role and offering a permanent support to the institutions that take part in the foreign trade. Consequently, we must say that it isn't enough only to liberalize the conditions of this activity. There should be created adequate mechanisms specific for the market economy. The state should manifest transparency and neutrality towards all the economic agents and to offer them equal opportunities to compete legally.

The Government seems to be alarmed about the problem of commodity markets' extension for Moldovan products. For this purpose, the strategy for export's promotion has been elaborated within the Department of Foreign Economic Relations. According to the promotion strategy of goods' export from the Republic of Moldova, there have been established the following organizational measures for the next years:[2]

1. The determination of the prioritized branches for export development.

In order to achieve an efficient promotion of goods export from our country the Government will concentrate its efforts to determine the priorities of export development (branches, subdivisions, certain types of production) both in the existing fields and in those connected with new products launching. The development of this process on the basis of a detailed market survey and according to market tendencies will help the industry of the Republic of Moldova to discover new market niches and to offer to consumers new demanded goods. In order to determine the prioritized branches and export products one should take into account the existing tendencies on the foreign markets regarding

raw material. Historically, agriculture and the consumption of the ecologically pure alimentary products.

2. The improvement of goods quality.

Products promotion can be ensured only if products quality meant for export would meet the requirements of a certain commodity market.

3. The formation of the institutional and informational framework for export promotion.

The promotion of goods export and of the economic cooperation according to national desiderata and the harmonization of state's interests with those of the economic agents can be achieved only in the conditions where a specialized institutional structure is functioning. This specialized institutional structure should be concerned with the following tasks: implementing strategies, establishing priorities, solving problems connected with exporters' motivation, creating the information system, system of marketing data processing, system of services support for business groups, including professional training and elaboration of the basic programs referring to manufacture of the export products and market development.

4. The creation of a juridical framework.

The promotion of goods export is impossible without the elaboration of an adequate juridical basis, which should correspond to the principles and norms of international law.

In order to solve these problems it is necessary to elaborate and to ratify laws and normative acts of essential importance such as "Regarding dumping or subsidized imports and protection measures of the national market" and "Regarding state regulation of the foreign economic activity", etc.

5. The development of the commercial network promotion abroad.

In the conditions of increasing competition on the world market it is necessary to intensify the activity of the foreign economic and commercial promotion of the state and national agents. The activity of commercial bureaus abroad will subordinate directly to state department empowered with promotion functions of goods export.

6. Staff schooling and training

Export promotion, as well as foreign trade activity, also supposes development measures

of the system concerned with staff schooling and training. In this context, it is necessary to work on the efficiency and development of instruction measures and programs for staff instruction, which can be accomplished through the agency of specialized educational institutions as well as using different instruction forms practiced within instruction and business centers, producers and exporters organizations, including also the use of special foreign computer-assisted programs.

7. Measures and ways to finance and stimulate the export.

The measures used in this block of actions and the so-called financial insurance measures of foreign trade operations, plainly speaking, are at the top of the whole infrastructure pyramid of export promotion. The lack of means and sources to finance the foreign trade and all other promotion activities in marketing, information, advertisement, packing, exhibitions etc., makes all this activity senseless because of the lack of the last cycle's link - financing.

Presently, Moldova enjoys GSP + trading facilities in its export operations EU.[1]

The Moldovan Government is in the process of negotiating Autonomous Trade Preference (ATP) facilities for its EU exports. ATP will allow virtually all products originating in Moldova to enter the EU without quantitative restrictions and customs duties.

Once ATP comes into force, it should become a serious attraction point for potential investors. Local EU representation source and the Moldovan Ministry of Economy predict Moldova will join the ATP system in the course of the next several months.

CONCLUSIONS

The Government will try to insure advantageous conditions for export crediting. There will be created state organizations or special subdivisions within the commercial banks which will be in charge of offering credits for export stimulation. Annually, there will be allocated financial resources from state budget

for the stimulation and promotion of the local goods export, including the participation in international markets and exhibitions (this kind of funds are allocated in the most world countries and they are about 0,5% - 1,5% from total value of annual exports). The elaboration of a set of measures in this field will insure the systematic guarantee of the main export activities – the access of the economic agents to the sources of foreign financing. In order to sustain and promote the export, there will be attracted foreign resources, especially non-reimbursable ones (technical assistance), at every level, which will significantly contribute to the establishment and development of specialized institutions for export promotion, as well as to the involvement and training of the necessary human resources in order to accomplish activities at strategic and operational levels within authorized institutions. The insurance of any slight increase is due, first of all, to the concentration of all the efforts on making the export more active and diminishing the import and also due to the reorientation of the production and services towards the export one. And second, it has been achieved through the agency of commodity markets diversification and elaboration of special tools able to increase local goods competitiveness.

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THE IMPORTANCE OF ENVIRONMENTAL COST ACCOUNTING IN THE MANAGEMENT OF AN ENTERPRISE

Alina MĂRCUȚĂ, Carmen ANGELESCU, Ioana NICULAE, Liviu MĂRCUȚĂ

University of Agricultural Sciences and Veterinary Medicine, Bucharest , 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail alinamarcuta@yahoo.com, angelescucarmen@yahoo.com, iniculae2007@yahoo.com, liviumarcuta@yahoo.com

Key words: *accounting, costs, management, ecology, environmental protection*

Abstract

The real concerns of states regarding ecology are reflected in outlining and trying to define a new economy, the ecological economy. These new ideas lead to the emergence, in the accounting field also, of a new type of accounting, the management accounting of environmental costs which takes into account the fact that gaining profit, for any economic operator who acts in this field, is a purpose given by the competitive system itself of the market economy, and also the fact the protection of natural environment is necessary as the result of non-rational economic development impact on natural factors.

INTRODUCTION

For a long time, we have been witnessing several economic changes which make some mutations in the international economy.

We went through the industrial revolution, the technological revolution, the economic globalization system, and in the last few years, a new current started to be more and more present, that of ecological economy which contributed to the development of new concepts such as the environmental management accounting.

The intangible assets, meaning, the knowledge, are the main resource of the new economic concept, but it cannot work in the absence of traditional tangible assets which are essential to the productive activity.

MATERIAL AND METHOD

The methodology suggested to be used in implementing the environmental cost management system within the companies involves the following stages:

- Identifying the environmental costs of the company
- Development of material and cash flows of the company

- Assigning environmental costs on cost centers and/or products

• Establishing a set of indicators for monitoring
In order to fulfill the environmental objectives, several principles and concepts related to the management of environmental costs are used with the aim:

- To assess the environmental protection projects and investments
- To diminish the costs of waste resulted from the company's processes
- To diminish the costs related to the water used within the company's processes
- To diminish the costs related to the energy used within the company

RESULTS AND DISCUSSIONS

Rethinking of a new economy from ecological perspective involves the use of new management tools at the level of enterprises, such as the Environmental Management System (EMS).

An environmental management system includes several specific actions by which the fulfillment of an objective is contemplated: the preservation of the environment in which the enterprise performs its activity.

All the actions related to the environmental policies are reflected in the environmental

costs, a component which cannot be neglected and the appearance of which lead to the development of the Environmental Management Accounting (EMA).

The internal management of costs, from an environmental perspective, has to take into account the review of the way in which the production costs are calculated based on material flows, and the inclusion of all the relevant and significant costs in the decision-making process.

On the other hand, the profit becomes one of the main value levers and the source of incomes of the environmental protection activity budget in the context of an increased contradiction between the natural environment and the economic growth, respectively the harmfulness of the last one.

With the aim to gain profit, we have to take into account the fact that the environmental protection is not only an activity aimed to perverse the environment quality and to protect its resources, but also a source of development.

The development of production of goods and services implies changes of environmental factors which are outside the area of free goods and are considered economic goods. This is why the structure of the value of goods must include both the expenses for live labour, and the expenses for physical labour used for to protect the of natural environment.

The price of goods must reflect accurately accurate of entire labour consumption within the production - final consumption, meaning the inclusion of the environmental protection costs in the costs.

The rethinking of the new economic trend from an ecological perspective involves the use of some new management instruments at the level of enterprises, such as the Environmental Management System (EMS) which includes a series of specific actions by which the achievement of an objective is envisaged, meaning the protection of the environment where the company performs its activity.

The reflection in accounting of all the actions related to the environmental policies is made by the environmental costs, which are a cost component which cannot be neglected.

The appearance of these accounts lead to the development of a Management Accounting of Environmental Costs (EMA).

The internal management of costs, from an environmental perspective, must take into account the review of the way in which the production costs are calculated based on the material flows, as well as the inclusion of all the relevant and significant costs in the decision-making process.

According to the specialized literature, the fields in which the Environmental Management Accounting can be applied are the following:

- Assessment of annual environmental costs/expenses
- Establishing the product price
- Preparing the environmental budget
- Assessment of environmental investments
- Calculating the costs, savings and benefits resulted from environmental projects
- Designing and implementing environmental management systems
- Assessing the environmental performance, indicators and benchmarking
- Establishing quantifiable performance objectives
- Obtaining of a clean production, pollution prevention and the development of environmental projects
- Exterior promotion of expenses, investments and environmental obligations
- Environmental reports
- Other environmental data submissions to statistical agencies or local authorities

As a result, the emergence of this new concept of Environmental Management Accounting leads to the emergence of the notion of environmental costs and to their classification.

Thus, we can distinguish between:

1. Costs for waste unloading/storage, for emissions and their treatment including materials and manpower for maintenance works. Insurances and provisions for environmental obligations also reflect the idea of treatment instead of prevention.
2. Prevention and environmental management costs – which include costs related to labour and external services for the good management/administration of environment

and additional costs for clean technologies, if they are significant.

Research and development of environmental projects are also included in pollution prevention.

3. Costs for materials and for processing non-products which include the value for the supply of goods which is included in waste. All the outcomes of non-products are assessed based on the material balance. Materials which are included in waste are assessed according to the supply value or to the value of materials using the stock management.

4. Costs for processing the non-product outcomes which also include man-hours, machine amortization, material and financial costs

5. Costs which are external to the company and generated by the public or costs related to suppliers and clients ("life cycle" costs)

6. Costs related to health, property insurances or resulted from environmental obligations (there are also "environmental" incomes, resulted from waste sale or non-refundable loans).

For the allocation of these costs, new allocation indicators have been defined:

- Volume of treated emissions and waste
- Toxicity of treated emissions and waste
- Added environmental impact (volume differs from the impact caused by the volume unit) of emissions
- Costs for treating different types of waste and emissions

Management of environmental costs changes the way in which the costs are calculated and is aimed to organize the production from one end to another by efficiently structured material and information flows.

The novelty in comparison with the old approach of material flow, in which the process by which value was added to end products was monitored, is that losses are also taken in consideration within the flow sheet.

The objective of cost calculation system is not to calculate the environmental costs, but to obtain information regarding the ways in which the total production cost is allocated. This new system has two advantages, one economic and one ecological:

- the economic advantage shows the material costs, their value and the places where they appear and that they have the main weight in the processing industry

- ecological advantage meaning the fact that it leads to the diminishing of costs for materials and energy, having positive ecological effects in waste, emissions and effluents diminishing

CONCLUSIONS

The advantages of using environmental policy within the companies, as a result of using new developed instruments, are the following:

1. diminishing of the costs and benefits as a result of increased efficiency when using natural resources;

2. increased concerns for the development of new products, technologies and work procedures;

3. increased quality and consistency of information supplied to the management;

4. development of communication between departments and branches of a company;

5. the involvement of top management in structuring the material flow is accentuated;

6. increased efficiency when using raw materials and materials becomes one of the most important objective.

7. the concept of eco-efficiency will be reflected in diminishing the environmental costs and impacts by the efficient use of energy, water and materials, planning and implementing investments in pollution control, planning and implementing energy and material efficiency programs, assessment of annual total incomes of the investments in eco-efficiency activities

8. also, the strategic position of companies will be strengthen by assessing and implementing programs for assuring the strategic position of the company on long term, by designing "green" products and services which will establish a competitive advantage and by reporting to the stakeholders (local community, clients, investors) various data regarding the relevant environmental issues.

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THE NEED TO ARRANGE AN ENVIRONMENTAL ACCOUNTING AND PERSPECTIVES OF ITS DEVELOPMENT

Alina MĂRCUȚĂ, Carmen ANGELESCU, Elena STOIAN, Liviu MĂRCUȚĂ

University of Agricultural Sciences and Veterinary Medicine, Bucharest , 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail alinamarcuta@yahoo.com, angelescucarmen@yahoo.com, liviumarcuta@yahoo.com

Key words: *environmental accounting, costs, environment, pollution*

Abstract

The traditional accounting does not offer the ideal framework for identifying the information necessary for the environment protection because they usually focus on the costs of used resources and their aggregation and many effective and potential costs related to the environment remain unidentified. Thus, the resource vectors and the measures of activities performed need a special monitoring, on which the environment accounting is based.

INTRODUCTION

Accounting is a tool for registering the asset movement, in order to establish the future results of the activity, the added value, the gross domestic product, the economy or the accounts receivable and payable balance.

The efficiency of each information flow-generating link depends on its connection with the current reality and not with the desired one.

The current *National Accounting System* does not reflect an important segment of reality, the stocks and flows related to the two-way relation between the social and economic system and environment since we are facing a severe eco-crisis which can be overcome only by changing the tradition routines related to the requirements of environment preservation. In this context, the environmental accounting may become an area where decisions with an impact in this regard are taken.

MATERIAL AND METHOD

The idea of an "environmental accounting" has appeared in '60-70, first in theory and then in actual form, being applied in Norway (1974), Canada (1977) and subsequently France.

The issue of environmental accountability and of natural resources was on the agenda of *Rio Summit* when the need for some means of

environmental management was outlined and the "System of the integrated economy-environment costs" was presented, prepared by the UN within the review objective related to the "national accounting system".

Starting with 1990, the *Statistical Office of the European Union (Eurostat)* has started to define a *European System for the Collection of Economic Information on the Environment (SERIEE)*.

This system is included in the guidelines of the *System of National Accounts*, adopted on international level and suggests to the member states a common framework for the collection, processing and submitting of the economic information about environment, being targeted on environment protection and on assessing the expenses established in order to diminish the impact on environment which are subject to a certain account, meaning the *Environmental Protection Expenditure Account (EPEA)*.

RESULTS AND DISCUSSIONS

The aim of the Environmental Protection Expenditure Account is to answer to the following three questions:

1. How much spends the national collectivity and how for the environmental protection?
2. Which are the economic activities aimed to environmental protection?

3. How and through which agents this expenses are financed?

In France, between 1995 and 1998, environmental protection expenditure accounts have been created in the following fields: water management, waste management, air and noise pollution, landscape biodiversity.

However, there are some fields of the European classification of environmental protection activities which are not included in the expenditure account (soil and underground water protection, protection against radiation).

As a satellite account for environmental protection, the SERIEE Environmental Protection Expenditure Account is coordinated with the national accounts.

This account represents one of the modules of the *Integrated System of Economic Environmental Accounts (SEEA)* which suggests a standardized presentation of the interaction between economy and environment which is articulated in relation with the flow accounts (pressures on environment) and asset accounts (state of the environment from a physical and monetary point of view).

In this context, the expenditure accounts can be seen as describing the effective response of the companies to the pressures and degradation to which the environment was subject.

Another module of the *Integrated System of Economic Environmental Accounts* is represented by the synthesis indicators which bring synthetic information regarding the pressure level and environment state. Their aim is to provide a more direct monitoring of the public policies.

OECD has defined indicators based on the "pressure-state-response" model. The pressures results from human activities, the state is that of the physical environments, and the responses are the efforts made by the public and private actors.

The most important indicators are:

- for climatic changes: intensity of CO₂ emissions;
- for the ozone layer: harmful substances for the ozone layer;
- for air quality: intensity of SO_x and NO_x emissions;
- for waste production: intensity of municipal waste production;

- for the quality of fresh water: connection rate of the water treatment plants;

- for fresh water resources: intensity of fresh water use;

- for forest resources: intensity of forest resource use;

- for energy resources: intensity of energy use;

- for biodiversity: number of endangered species.

The emission accounts are aimed to correlate the air, water and soil pollutants with the productive and consumption sectors. Thus, the *Central Bureau of Statistics of the Netherlands* has developed a matrix of emissions in different environments and the activity of productive and non-productive sectors, this method being adopted at European level, especially for describing the atmospheric emissions and discharges in water.

The analysis of environmental damages is vital in order to explain a part of the constant evolution within the stock of natural assets. This is why the integration in the accounts of the damages related to the depletion of natural resources, land use, use of pollution removal function is envisaged.

However, an international assessment of the natural assets and of the environment degradations is yet difficult. Physical accounts have been prepared which can describe the entirety of natural assets of a country and its various components, including the use of the stocks of natural resources on one hand, and the degradation of natural environments caused by economic activities, on the other hand. These data can be correlated with the natural accounts which are expressed in monetary terms.

The main source of information are the following:

- accounting data, more detailed, by introducing new accounts available at the *Directorate General of Public Accounting*, regarding the local public institutions and the related budgets of municipalities;

- inquiries about the "local collectivities and the environment" in partnerships with the *Water Agencies*, waste facilities;

- inquiries in waste field, as well as the results of some studies conducted by the ministry in charge of environmental protection.

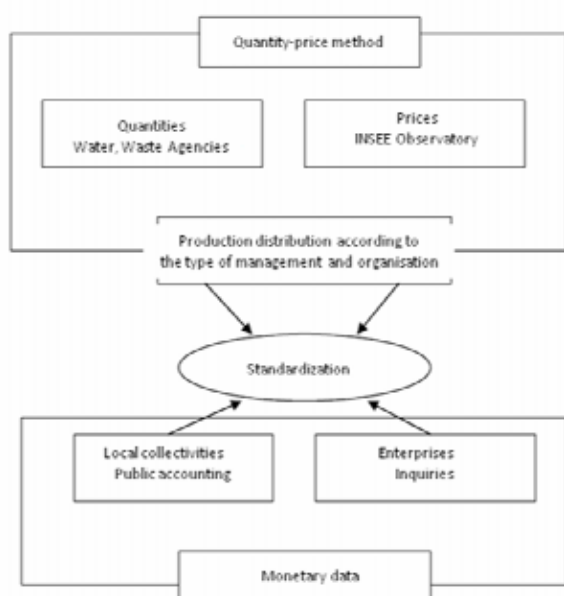
The improvement of these accounts allows the integration of monetary and physical data for a better supervision of the policies implemented by different agent categories and of their impact.

In the field of waste, the correlation of collected and processed waste, according to its category and the accounting assessments for the expense made is envisaged.

In the field of water, the collected and distributed quantities of water, on the one hand, and the collected and treated used water, on the other hand will be correlated with the value of expenditures reported for these.

The aim is to identify the factors which explain the developments described by the accounts. In addition to the comparison of results, necessary in the initial stage, the creation of some complementarities is pursued. Some bodies involved in the field of water and waste have developed specific accounting and/or financial information systems, and the information made available by these systems clarify important issues related to the accounts, such as financing, service and equipment price.

Diagram of price improvement:



The improvement of environment accounts is aimed to improve the contribution to the creation and strengthening of proper tools. Therefore, the accounts shall include the tools

necessary to monitor these policies, meaning: data regarding price monitoring, data regarding various tax networks and the use of the assigned funds, emission evolution and physical indicators. One of the main objectives related to the improvement of environment accounts is related to the issue of cost recovery. Thus, the European Framework Directive is aimed to control if these costs, connected to equipment depreciation, are effectively integrated in the price of services.

Measures related to the improvement of accounts involve:

- an analysis of the current expenses according to the volume of services produced, type of treatment, service quality;
- a more accurate description of field arrangement and of the conditions of public administration intervention.

CONCLUSIONS

The enforcement of an environmental accounting has the following advantages:

- the distinct emphasis on environmental costs (hidden in the traditional accounting systems) will lead to the improvement of the information offered to the decision makers and to the increase of profitability;
- the environmental cost analysis may identify new opportunities which can be used to make savings by recycling resources or using them in other activities;
- identifying the environmental costs helps the environmental organizations to collect data regarding the environmental impact, necessary for domestic/foreign reports;
- the use of environmental accounting may offer a competitive advantage to an organization;
- the efforts to diminish the costs and influences on the environment will generate benefits for the entire mankind

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CLUSTERIAL STRUCTURES OF PRODUCTION AND COMMERCIALIZATION OF AGRICULTURAL FOOD PRODUCTS

Natalia MOCANU¹

¹Agrarian State University of Moldova, Chisinau, 44 Mircesti str., MD-2049, Chisinau, Moldova, Phone: +373 22 43 25 85, Fax: +373 22 31 22 76, E-mail: mocanunatalia@gmail.com

Key words: clusters, agricultural, holding, development

Abstract

The agrarian sector in its composition constitutes the nucleus of economic and social rural complex. The dynamic development in scientific directions argued of the agrarian sector, will assure also rhythms of economic development of the rural space.

INTRODUCTION

Clusters constitute integrated structures of economic agents from different organizational and legal forms that: activate in different branches, but, in one and the same field of the agricultural food sector; they are placed relatively compactly in the territorial aspect; they have a relative comparable level of insurance with the main factors of production; they have common interests as regards the dynamical and long development of this field from the many branches composition of agricultural food sector.

At the same time, the differences of these integrated systems are more multiple and more diversified in comparison with their common characteristics. It is meant the possibility of application in the cluster as of the integration processes on the vertical line, so of the association processes on the horizontal line; every economic agent has the right to be a member of more clusterial structures in functions of the directions and specialization levels; managerial contribution of the head bodies within the cluster is strictly determined by the empowers delegated to these bodies, from the part of economic agents involved in clusterial structures.

MATERIAL AND METHOD

The investigation methods consist in a systemic, comparative analysis and in the complex approach of the research subject

depending on the offered aims and tasks. There were used mathematic and statistic methods in the study, such as: classification, synthesis, static, comparative and dynamic analysis, correlation analysis, methods of induction and deduction, graphic representation of the events and investigated phenomena.

RESULTS AND DISCUSSIONS

If in holdings the managerial decisions are elaborated and applied by top managers (either by holdings owners; or wage managers), then the advancement of the tasks within the clusters that must be solved in an operational and argued way makes the cluster's members by the mechanism of the empowers delegation (fig. 1).

As the result, managerial capacities within the holdings are manifested by a relatively reduced group from the top head of the holding (M_{hold}) whereas the execution of these decisions is put in the task of an important number of holding members (M_{max}). In case of clusters the situation is narrow opposite. The managerial process within the both integrated structures is differed one from each other. Taking managerial decisions within the cluster is based on the main reasons of all the members, and their execution – at a higher level of knowledge and professionalism of executants, as usual, employed workers. Besides the decisional aspects, that seem to be more efficient and more democratic within the

clusters, than in case with holdings, the first ones are more open (more accessible) for all the economic agents, regardless of the fact if they are natural or juridical persons. As it is known this element of integration process is very important for the autochthonous agriculture at the present phase of development, because the weight of the production volume of individual households and those domestic and auxiliary ones, without speaking about unrecorded farmers (by farmer), constitutes more than a half of all the brutal agricultural production volume.

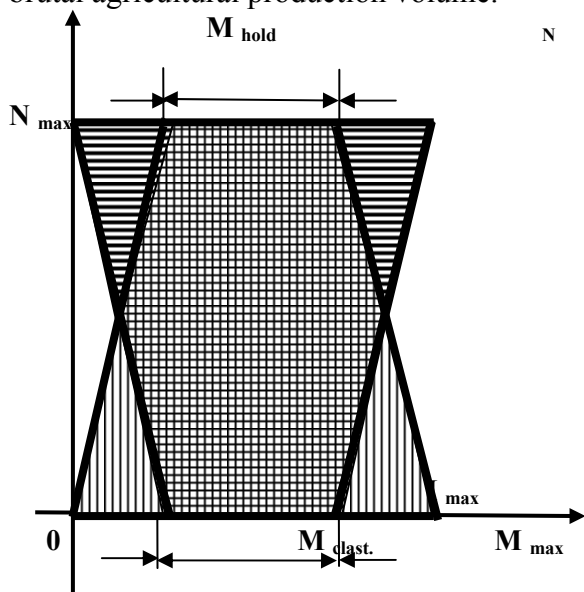


Fig. 1. Management system within integrated structures. N – hierarchical levels for taking decisions. M – numbers of the persons involved in the decisional process.

The cluster is created with the intention to equal, in one way or another, the incomes of its members in estimation of a unit effort. Likewise in holdings, all the hierarchical steps are harmoniously enlightened in the scientifically argued structure of the cluster; the proportionality principle is observed between the steps (phases) of the agricultural food products movement; practically the access is blocked in the composition of the cluster of speculative structures, of different types of intermediates, midfielders, firms created in an artificial way, sometimes for a single affair or for a day etc.

The regrouping of the production potential under the integration form on the vertical line of the all the cost chain is favorably for every enterprise

(economic agent) separately and completely for the national economy on the whole.

The economic effect is stipulated by durability and transparence of cooperation relations at the level of economic agents from the composition of integrated structures, by lowering of the natural and economic risks impact, by support (by case) of the economic activity from the state part. Participation of the economic agent in clusterial structures means its involving into the cost chain or into another one with all the derivate consequences on the theoretical plan. Obviously, as higher the economic efficiency of the cost chain functioning is, so more efficient will be also the members cluster functioning.

The level of competition in case of integration on the vertical line in the respective market is in growth, because the economic agent responsibility increases regarding another one that is placed hierarchically higher that receives goods from its predecessor and promotes it in continuation. At the same time the level of competitively is growing between the clusters, holdings enterprises non-involved in these integrated structures etc.

Formation of clusterial structures has the aim to assure proportional and harmonious development of all the hierarchical steps. Naturally the result of this intention is finished with the great reproduction at an argued level not only to the cluster members, but to all the components of the production potential from clusterial structures. At the same time the establishment and te durable keeping of proportions of structures well argued at the cluster level (holding, corporation etc.) in an automatic manner leads also to the correlation respect of the most efficient between the branches (under branches) at the national and global levels.

But at the moment it remains to establish hexogen factors of destruction of the agrarian sector at the phase of post privatization. As an example of argumentation the cost chain was selected regarding the production, transport, proceeding (including - package) and commercialization of the product made under homed cattle meat. The social necessary outlays in a normal mode on the all the mentioned chain (we underline the fact) could have a security under the income direct

proportional form (collection). In any case, the theory of fluxes (refluxes) free of money calls us to this thing that permanently has the intention to be oriented to those income sources that assure the maximal result obtaining (income). Consequently, a state of equalization of the income on a unity of income appears reflected on the conventional diagram (fig.2)

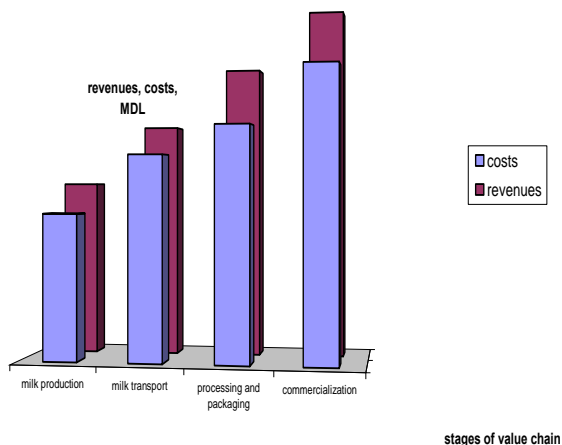


Fig. 2 Attended correlation (virtual) between the incomes (collections) and costs at the different phases of the cost chain of promotion of homed cattle meat.

But in reality the situation is different. The most traditional estate is characterized by the fact that the collection of agricultural producers are smaller than the costs, but the collection of superior hierarchical steps of the cost chain are higher in comparison with their necessary social costs (fig.3).

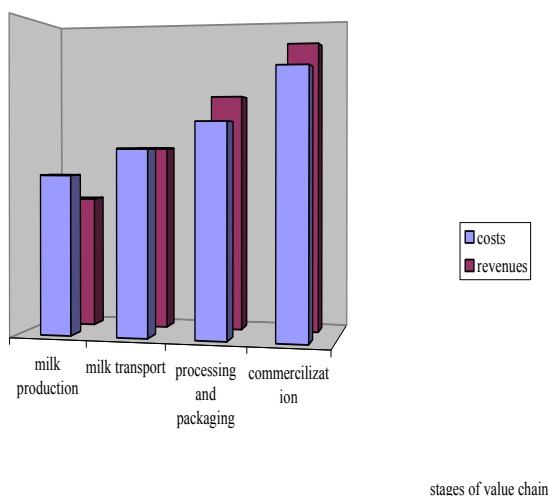


Fig. 3 Real correlation between the incomes (collection) and costs at the different phases of the cost chain of promotion of homed cattle meat.

Adequate consequences of evident distortions between the prices of cost and those ones from the market, more precisely-those ones of commercialization of homed cattle meat to final consumers are easily imaginable.

The structural proportions of the cost chain in milk production and in commercialization in the Republic of Moldova have dimensions better argued and more acceptable for agricultural products. This conclusion is made on the basis of the comparative estimations (analytical) of the level and structure of milk prices at the different phases of the cost chain respectively in the Republic of Moldova and in some other European countries (tab.1).

Table 1. Level and structure of realization prices of milk at the different steps of the cost chain (year 2007).

| Countries | Market price of the milk, at the final stage of consumption, dol. SUA/100kg | Including | | | Structure of market price of the milk, at the final stage of consumption, % | | | |
|----------------|---|-----------------|--------------------|------|---|-------------|----------|-----|
| | | Agrarian sector | Industry and trade | VAT | Total | Including | | |
| | | | | | | agriculture | industry | VAT |
| Russia | 99 | 38 | 52 | 9 | 100 | 39 | 52 | 9 |
| France | 88 | 38 | 47,5 | 4,5 | 100 | 43 | 52 | 5 |
| Germany | 87 | 47 | 34,5 | 5,5 | 100 | 54 | 39,5 | 6,5 |
| Holland | 87 | 48 | 34 | 5 | 100 | 55 | 39 | 6 |
| Lithuania | 74 | 31 | 32 | 11 | 100 | 39 | 46 | 15 |
| Czech Republic | 73 | 41 | 28,5 | 3,5 | 100 | 56 | 39 | 5 |
| Poland | 67 | 40 | 22,5 | 4,5 | 100 | 59 | 34,5 | 6,5 |
| Ukraine | 67 | 31 | 24,5 | 11,5 | 100 | 47 | 36 | 17 |
| Moldova | 50,2 | 24,8 | 21,7 | 3,7 | 100 | 49,4 | 42,6 | 8 |
| Byelorussia | 39 | 19 | 16,1 | 3,9 | 100 | 48 | 43 | 9 |

Source: Republic of Moldova-estimated by the author.

Table 2. Tendencies of lowering of livestock of cattle and lowering of production volumes of milk and meat of homed cattle at the national level.

| Indicators | Years | | | | | | | | | year 2008 in % towards the year 2000 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------------------------------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | |
| Livestock of horned cattle, thousand head, including cows | 423 275 | 394 269 | 405 272 | 410 279 | 373 256 | 331 231 | 311 217 | 299 207 | 232 169 | 54,8 61,5 |
| Milk production, thousand tone | 574 | 579 | 604 | 593 | 628 | 659 | 628 | 604 | 543 | 94,5 |
| Production of caw meat (in growth after sacrifice, thousand tones) | 18,0 | 15,6 | 16,1 | 16,3 | 16,1 | 15,6 | 15,0 | 15,2 | 12,0 | 66,7 |
| Production in estimation on habitant head, yearly, kg | | | | | | | | | | |
| - milk | 157,5 | 159,3 | 166,5 | 163,9 | 174,1 | 183,0 | 174,9 | 168,7 | 152,0 | 96,5 |
| - horned cattle meat | 4,9 | 4,3 | 4,4 | 4,5 | 4,5 | 4,3 | 4,2 | 4,2 | 3,4 | 69,4 |

Corporate sector regarding the milk production and homed cattle meat in the first years is persuaded also by the small and middle sector of production, including farmers and those auxiliary ones. As the result the general volume of production is reduced, the

dynamic of their lowering from year to year being reflected in the tab. 2.

CONCLUSIONS

Although it is practically known that the Republic of Moldova can be appreciated as an agrarian country, with a preponderant rural population and very small incomes in the geographic centre of the richest continent in the world, that Europe constitutes. As pessimistic this estimation could be, it is objective, because it corresponds to the reality. The conclusion that at present an especial attention must be taken at first to the rural space is discussed widely by the savants in the matter of economic sciences.

Obviously, the lack of the autochthonous production at present is widely compensated

by the import supply, about which fact it was spoken in the analytical part of the paper.

Formation of the clusterial sector of production constitutes a solution practically deprived of the alternative of the above mentioned problems.

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CASE STUDY CONCERNING THE TURNOVER DYNAMIC IN A FISH FARM FROM SOUTH-EST DEVELOPMENT REGION

Carmen Georgeta NICOLAE¹, Dana POPA¹, Magdalena TUREK RAHOVEANU², Gheorghe N. IOSIF³, Răzvan POPA¹

¹University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti Blvd., sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64, Fax: + 40 21 318 28 88, E-mail: carmennicolae19@yahoo.com

²Research Institute for Agricultural Economy and Rural Development of Bucharest, 61 Marasti Blvd., sector 1, 011464, Bucharest, Romania, Phone/Fax: +40 21 318 43 57, E-mail: mturek2003@yahoo.com

³The Bucharest Academy of Economic Studies, 41 Dacia Blvd., sector 1, 010404, Bucharest, Romania, Phone: +40 21 319 19 68; Fax +40 21 319 19 68

Key words: fish farm, South-East Development Region, turnover

Abstract

Analyze of production structure, on exploitation level, must be made in the same time with commercialization structures study, respectively with the dynamic of turnover. So, it can be deduced if sales structure favored or no the fish farm from economical point of view. The evolution in time of turnover index was appreciated by ordinary statistical models. The time period take in account in studied fish farm was to 2006 at 2008. The analyzed turnover is about fresh and frozen fish delivery activities. We observed, at the end of the study, that turnover had about 28.06% annual average increase rate. By correcting the current turnover by deflating or inflating, the annual average increase rate of turnover become +10.91%. This fact affected al financial and economical indexes from fish farm. We can also add other influences like: competition, decreasing of consumption's purchasing power, etc.

INTRODUCTION

According to turnover indicator it is appreciated the firm capacity to obtain incomes from current commercial operations. This indicator is a part from economical-financing results indicators category. It contribute to economical diagnose and evaluation of firm, to estimate efficiency of the management. Also, it permits the market position determination of a society, offer information about the activity dynamic, the business increase chances or the firm importance within activity sector.

MATERIAL AND METHOD

In any economic analysis it is important to start from time evolution of indicators (physical or capital) for appreciate some trend of estimated economical phenomenon. The evolution assessment of turnover index it is realize based on ordinary statistical models

[1]. The credibility of conclusions is based on accuracy of used information's and time period taking in account also.

Concerning the fish farm analyzed, the time period taking in account was 2006-2008.

The analyzed turnover is about fresh and frozen fish delivery activities. The market production has a various value, between 143 tones in 2006 and 175 tones in 2008, with a price between 670900 lei and 660400 lei.

The dynamic analysis of turnover index for 2006-2008 periods was realized based on:

a) absolute deviation with fixed base or in chain base:

$$\Delta CA = CA_i - CA_0 \quad \text{or} \quad \Delta CA = CA_i - CA_{i-1}, \quad i = 1, 3,$$

- Absolute deviations with fixed base, which obtain making difference between the levels of each period and the level of reference period, anterior established;
- Absolute deviations with chain base, which obtain making difference between the specific levels of each period.

The use of absolute modifications in chronological series analyses is recommended in case of approximate equal variations.

b) fixed or in chain base indexes:

$$I_{CA} = \frac{CA_i}{CA_0} \times 100 \text{ or } I_{CA} = \frac{CA_i}{CA_{i-1}} \times 100, i=1,3$$

In dynamic indexes shows how many times increase the level of research characteristic upon a time. In case of decrease, the index shows how much represents the new level in comparison with the level in base period.

c) fixed or in chain base increase rates:

$$R = \frac{CA_i}{CA_0} \times 100 - 100 \text{ or } R = \frac{CA_i}{CA_{i-1}} \times 100 - 100$$

Increase (or decrease) rates show that how modifies (in percent) the level in current period up against the level in comparison period. The pass from chain base rhythms to fixed base rhythms and vice versa is make just by transformation of this in dynamic indexes, because it not exist a direct relation between this relative indicators of chronological series.

d) increase annual average rhythm:

$$\bar{R} = \left(\sqrt[i-1]{\frac{CA_i}{CA_0}} - 1 \right) \times 100$$

The average rhythm \bar{R} shows the increase or decrease (in percent) of studied process, in terms of average evolution from a period to another.

RESULTS AND DISCUSSIONS

The study of turnover (market product) in analyzed fish farm, offer information about its activities and show the evolution trend of the phenomenon (Table 1). These information and statistic analyses had certain relevance just in situation in which the turnover dynamic (or effect capital indexes) is compared with dynamic of effort elements (inputs) and with dynamic of market evolution.

For example, if the market or activity sector (fish breeding) is more dynamic than company, the studied fish farm will loose from market share, indicator that toggle the company within activity sector or in relation with its competitors.

Table 1. The evolution of market product (QM), the selling price per unit of product (PK) and turnover (CA) to farm analyzed the period 2006-2008

| Specification | 2006 | | |
|-------------------------------------|-------|--------|--------------|
| | Tones | Lei/Kg | Thousand lei |
| 1. Fresh fish delivery | | | |
| Carp 1-2 kg | 25 | 5.0 | 125.0 |
| Carp 2-10 kg | 20 | 7.5 | 150.0 |
| Silver carp 2-10 kg | 25 | 3.5 | 87.5 |
| Bighead carp 2-10 kg | 5 | 3.5 | 17.5 |
| Pike | 2 | 7.0 | 14.0 |
| Sheatfish | 1 | 9.0 | 9.0 |
| Crucian carp | 8 | 2.8 | 22.4 |
| Total | 86 | X | 425.4 |
| 2. Frozen fish delivery | | | |
| Carp 1-2 kg | 20 | 5.5 | 110.0 |
| Carp 2-10 kg | 0 | 7.7 | 0 |
| Silver carp 2-10 kg | 25 | 3.7 | 92.5 |
| Bighead carp 2-10 kg | 10 | 3.7 | 37.0 |
| Pike | 0 | 0 | 0 |
| Sheatfish | 0 | 0 | 0 |
| Crucian carp | 2 | 3 | 6.0 |
| Total | 57 | X | 245.5 |
| Total market | 143 | X | 670.9 |
| 3. Secondary market products | | | |
| Carp summer II | 18 | 5.5 | 99.0 |
| Silver carp summer II | 25 | 4.0 | 100.0 |
| Bighead carp summer II | 17 | 4.0 | 68.0 |
| Total | 60 | X | 267 |
| Specification | 2007 | | |
| | Tones | Lei/Kg | Thousand lei |
| 1. Fresh fish delivery | | | |
| Carp 1-2 kg | 16 | 5.5 | 88 |
| Carp 2-10 kg | 25 | 8.0 | 200 |
| Silver carp 2-10 kg | 40 | 3.8 | 152 |
| Bighead carp 2-10 kg | 15 | 3.8 | 57 |
| Pike | 1 | 7.0 | 7 |
| Sheatfish | 1 | 9.0 | 9 |
| Crucian carp | 10 | 3.0 | 30 |
| Total | 108 | X | 543 |
| 2. Frozen fish delivery | | | |
| Carp 1-2 kg | 20 | 5.7 | 114 |
| Carp 2-10 kg | 5 | 8.5 | 42.5 |
| Silver carp 2-10 kg | 35 | 4.0 | 140.0 |
| Bighead carp 2-10 kg | 20 | 4.0 | 80.0 |
| Pike | 0 | 0 | 0 |
| Sjeatfish | 1 | 9.5 | 9.5 |
| Crucian carp | 5 | 3.5 | 17.5 |
| Total | 86 | X | 403.5 |
| Total market | 194 | X | 946.5 |
| 3. Secondary market products | | | |
| Carp summer II | 10 | 5.7 | 57 |
| Silver carp summer II | 15 | 4.1 | 61.5 |
| Bighead carp summer II | 15 | 4.1 | 61.5 |
| Total | 40 | X | 180 |
| Specification | 2008 | | |
| | Tones | Lei/Kg | Thousand lei |
| 1. Fresh fish delivery | | | |
| Carp 1-2 kg | 5 | 6.0 | 30.0 |
| Carp 2-10 kg | 25 | 8.5 | 212.5 |
| Silver carp 2-10 kg | 30 | 5.0 | 150.0 |
| Bighead carp 2-10 kg | 5 | 4.5 | 22.5 |
| Pike | 1.5 | 7.5 | 11.25 |
| Sheatfish | 1.2 | 9.5 | 11.4 |
| Crucian carp | 12 | 3.5 | 42.0 |
| Total | 79.7 | X | 479.65 |

| 2. Frozen fish delivery | | | |
|------------------------------|------|-----|---------|
| Carp 1-2 kg | 15 | 6.5 | 97.5 |
| Carp 2-10 kg | 25 | 9.0 | 225.0 |
| Silver carp 2-10 kg | 30 | 5.5 | 165.0 |
| Bighead carp 2-10 kg | 20 | 5.0 | 100.0 |
| Pike | 1.5 | 8.0 | 12.0 |
| Sheatfish | 0.8 | 9.8 | 7.84 |
| Crucian carp | 3 | 3.7 | 11.1 |
| Total | 95.3 | X | 618.44 |
| Total market | 175 | X | 1098.09 |
| 3. Secondary market products | | | |
| Carp summer II | 25 | 6.0 | 150 |
| Silver carp summer II | 30 | 4.3 | 129 |
| Bighead carp summer II | 20 | 4.3 | 86 |
| Total | 75 | X | 365 |

Source: own computation based on case study

According to Table 1 data, turnover analyze (total market product) underline some essential aspects during the period 2006-2008:

a) absolute deviations were:

- with fixed base:

$$\Delta CA = CA_{2008} - CA_{2006} = 427.19 \text{ Thousand lei};$$

$$\Delta CA = CA_{2007} - CA_{2006} = 275.6 \text{ Thousand lei}.$$

- with chain base:

$$\Delta CA = CA_{2007} - CA_{2006} = 275.6 \text{ Thousand lei};$$

$$\Delta CA = CA_{2008} - CA_{2007} = 151.59 \text{ Thousand lei}.$$

b) indexes were:

- with fixed base:

$$I_{CA} = \frac{CA_{2007}}{CA_{2006}} \times 100 = 141\%;$$

$$I_{CA} = \frac{CA_{2008}}{CA_{2006}} \times 100 = 164\%.$$

- with chain base:

$$I_{CA} = \frac{CA_{2007}}{CA_{2006}} \times 100 = 141\%;$$

$$I_{CA} = \frac{CA_{2008}}{CA_{2007}} \times 100 = 116\%.$$

c) increase rates were:

- with fixed base:

$$R = \frac{CA_{2007}}{CA_{2006}} \times 100 - 100 = 41\%;$$

$$R = \frac{CA_{2008}}{CA_{2006}} \times 100 - 100 = 64\%.$$

- with chain base:

$$R = \frac{CA_{2207}}{CA_{2006}} \times 100 - 100 = 41\%;$$

$$R = \frac{CA_{2008}}{CA_{2007}} \times 100 - 100 = 116 - 100 = 16\%.$$

d) increase annual average rhythm:

$$\bar{R} = \left(\sqrt[i-1]{\frac{CA_{i2008}}{CA_{2006}}} - 1 \right) \times 100 = 28.06\%$$

The study of turnover (market product) in the case of farms analyzed for a period of time provides information about its business in term of phenomenon trend evolution.

This information and statistic analyses had relevance just in case of comparison between turnover, effort elements dynamic (inputs) and market evolution dynamic also.

For example, if market or activity sector (fish breeding) is more dynamic than company, the study fish farm will lose from market share, indicator that toggles the company within activity sector or in relation with its competitors.

The share market is identify by two indicators: absolute share market, which reflect the company position on market, and relative share market which reflect the company position in relation with market leaders.

A characteristic of market economy, including Romania, is inflation. Therefore, the analysis in turnover in the dynamic, but in current monetary units is less relevant, findings and proposed measures have a great economic value.

Inflation affect all economical fields (exploitation, financing, investments).

From this reason, the correct interpretation of phenomenon or economical indicator requires its correction with inflation rate.

The comparability of data may be possible not only by indicators deflation or inflation.

In case of analyzed fish farm, the evolution of current turnover (result by frozen fish sale), during 2006-2008, and levels of indicator corrected by deflation or inflation are show in Table 2.

Table 2. The evolution of current turnover during 2006-2008 in analyzed fish farm

| Indicators | -Thousand lei- | | | |
|---------------------------------|----------------|--------|---------|---------------|
| | 2006 | 2007 | 2008 | \bar{R} (%) |
| Current turnover | 670.9 | 946.5 | 1098.09 | +28.06 |
| Prices index (%) | 100 | 104 | 134 | - |
| Turnover corrected by deflation | 670.9 | 910.1 | 819.47 | +10.91 |
| Turnover corrected by inflation | 899.01 | 1221.0 | 1098.09 | +10.91 |

Source: own computation based on case study

Table 3. The evolution of average sale prices in analyzed fish farm

| Fish product | -Lei/tones- | | |
|--------------|-------------|------|------|
| | 2006 | 2007 | 2008 |
| Fresh fish | 4.95 | 5.03 | 6.02 |
| Frozen fish | 4.31 | 4.70 | 6.49 |
| Total fish | 4.70 | 4.88 | 6.28 |

Source: own computation based on case study

From data presented in Table 3 result that, in current values, the turnover has an annual average increase rhythm by 28.06%, and significantly annual average gains. The prices increase caused by inflation was significantly. This fact generates a slow increase of turnover. Correcting the current turnover by deflation or

inflation, it can be show that the real annual increase rhythm is +10.91%, not 28.06%. This fact will affect al economical indicators of analyzed fish farm. Furthermore, it can be added the influence of other causes like: competitor's existence, decrease of purchasing power, etc.

CONCLUSIONS

1. The turnover has an annual average increase rhythm by 28.06%.
2. Correcting the current turnover by deflation or inflation, it can be show that the real annual increase rhythm is +10.91%.

ACKNOWLEDGEMENTS

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BASIC RULES FOR CREATING AND MANAGING AN EFFICIENT ADVERTISING CAMPAIGN

Victor OLTEANU

Research Institute for Agricultural Economy and Rural Development , 61 Marasti, sector 1,
Bucharest, Romania , Email : contact@iceadr.ro

Key words: advertising, efficient, rules

Abstract:

A bad campaign can cost as much a well done campaign. Starting from this point, I consider that in the first place the cost of a advertising campaign doesn't matter, but the way this campaign is made and it reaches its goals. Our days, when everything is happening very fast, a promo message has to captivate and reaches its goal in only 1-2 seconds.

INTRODUCTION

Most of the advertisements look like advertisements, therefore we can conclude that most of the advertisements look the same, that's why most of them are overlooked by the target and they don't reach their purpose.

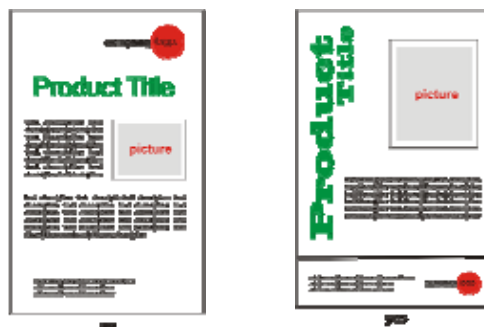
Taking into consideration the above, we should create advertisements that don't look like advertisements, even more that they shouldn't be similar to the ones of our partners or competitors, this means that when you start to create a advertisements by „checking” what others did before, there are chances that your advertisement has a bad start. Each category has its own unwritten rules on how an advertisement should sound and look like, therefore, first of all, that a campaign be a success and reach its target must to have a courageous client that assumes the risks and thinks outside the patterns created along the years.

MATERIAL AND METHOD

You have to take into consideration that your promotional message competes with competitors messages, that's why besides its real market connection it has to be much interesting than the one of the competitors, so it has a better impact and a maximum draw of attention for the viewer.

It is true that an advertisement has to contain a title, a picture and the object / service characteristics, but ourdays when the number

of offers is bigger each day and the promotional campaigns are more aggressive, the modern man trained himself, as a selfdefence against advertising; that's why you should create an advertisement outside the patterns where the title is on the top of the page, a picture is on three quarters of the page and product / service description.

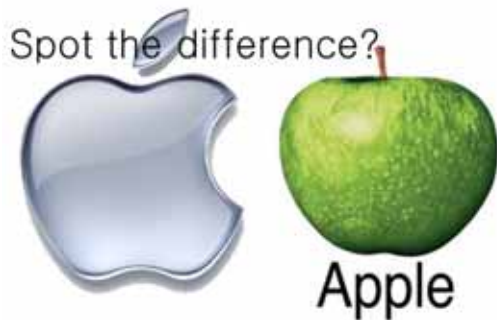


To avoid these automathism, your advertisement should be funny, stimulative, shoking, intriguing and have an immediate effect on the viewer. If your advertisements won't touch the viewer, he wiil not buy your products or services.

There are many ways in which you can make an advertisement to draw the attention: font size, the used font, the color, an unusual image, the empty space, the message simplicity or even a title as a news.

Another problem we see often in the promotional campaigns is the big number of elements (information) in an advertisements, *reduce the number of elements or reduce the efficacy.*

When we start an advertising campaign, the promotional advertisement of a product or a service shouldn't be mistaken for the introducing process of that product / service. Don't try to transform the advertisement into an information brochure in which you try to give as much as possible information about the product, its distribution, its history, detailed description of its running, and so, only for the apparent wish to save the budget for that product / service. The many the things to attract or distract the target, the easier is for the viewer to skip your advertisement and to go to another advertisement or event, leaving you with a wasted chance and spent money, with no effect. Therefore, it is better to think when and what is good to save, before starting to create an advertisement



When you create an advertisement you can be just a little simple, the problem is that if you include too much information, the people will remember less, meaning that more you see less you understand.

You should propose yourself that your advertisement transmits all by a shoot. „Put yourself in the child shoes that waited the Christmas so impatient and suddenly finds under the Christmas tree a dozen of toys and he has the possibility to play only a toy at once, which to choose first”. The studies have demonstrated that an advertisement has only 1-2 seconds to captivate a viewer, so you better start with the subject.

RESULTS AND DISCUSSIONS

Supporting the above, is the priority process of image, which is the process of viewer manipulating with your communication. It tells you what, how and in what order to look. In an

advertisement, the words and images are like two halves of a whole, as a basic rule: the simple words need interesting images and the interesting titles need simple images.

CONCLUSIONS

The extraordinary advertisements have effect. The good advertisements only contribute to figure round off and the invisible advertising is all about high costs.

The problem with the ordinary advertisements is that you have to broadcast more times than a good advertisement, in order to leave a trace in people's minds, but they do leave a trace in brand's budget.

This means that a bad advertisement is more expensive than a good one.

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- [5] Caples John - Tested Advertising Methods

PRIMARY OFFER OF PLANT PRODUCTS IN VILLAGE LĂCUSTENI, VÂLCEA COUNTY

Radu Lucian PÂNZARU ¹, Dragoș Mihai MEDELETE ¹

¹University of Craiova, Faculty of Agriculture, 19 Libertății, 011464, Craiova, Romania, Phone: +40 251 416 595/146, Fax: + 40 251 418 475 , E-mail : rlp1967craiova@yahoo.com, medelete@yahoo.com

Key words : surface structure, total production, average yield

Abstract

The paper presents the evolution of primary production supply for vegetable production specific to Lăcusteni commune, Vâlcea County. The data used were synthesized by the following indicators: the structure of arable area, total production and average yield crops of wheat, barley, oats, corn, potatoes, vegetables and fodder plants. During the period analyzed (2006-2008), areas planted, total production and average yields have seen quite significant changes. For winter wheat production recorded a decrease from 460 tons in 2006 to 190 tonnes in 2007, oats has a maximum production of 150 tonnes in 2008, potato production has declined steadily in the production of fodder plants expressed as green mass obtained was constant in the years 2006 and 2008.

INTRODUCTION

In terms of rational use, land is increasing its production potential, unlike other categories of technical capital: Mechanical - tractors, agricultural machinery, plant, organic - vineyards, orchards, hops, livestock breeding and traction. They wear out gradually and eventually had to be replaced. [1]. Deals on agricultural commodity markets is scattered and uneven quantity. Volume production depends on the technical part of the endowment, and secondly the climate and biological conditions that are random, printing these markets agricultural commodities, are highly mobile [2]. Offer a product "X" is the quantity that producers are willing to produce at a cost "K", given the profits they will get [3]. The Lăcusteni village grow, on average 58.22% of arable land during 2006-2008 [4].

MATERIAL AND METHOD

In order to characterize the evolution of offer primary and plant products, the following indicators were used : cultivated area, the structure of arable area, total production, average yield per unit productive. The period analyzed in this study is 2006-2008. The data, collected from Village Lăcusteni, have been

statistically processed and interpreted, building the trend line.

RESULTS AND DISCUSSIONS

Data on the structure of arable area in the village Lăcusteni during 2006 - 2008, are found in Table 1.

Table 1. Structure of arable surface (ha)

| Specification | Year | | | | | | Average | |
|---------------|------|-------|------|-------|------|-------|---------|-------|
| | 2006 | | 2007 | | 2008 | | Ef. ha | % |
| Wheat | 200 | 17,05 | 95 | 8,10 | 100 | 8,56 | 131,67 | 11,22 |
| Barley | 15 | 1,28 | 5 | 0,43 | - | - | 6,66 | 0,57 |
| Oat | 50 | 4,26 | 50 | 4,26 | 100 | 8,56 | 66,67 | 5,68 |
| Corn | 450 | 38,36 | 300 | 25,58 | 500 | 42,65 | 416,67 | 35,52 |
| Potatoes | 10 | 0,85 | 10 | 0,85 | 10 | 0,85 | 10 | 0,85 |
| Vegetables | 17 | 1,45 | 17 | 1,45 | 30 | 2,56 | 21,33 | 1,82 |
| Fodder plants | 30 | 2,56 | 30 | 2,56 | 30 | 2,56 | 30 | 2,56 |
| Unsowed | 401 | 34,19 | 666 | 56,77 | 403 | 34,36 | 490 | 41,78 |
| Arable total | 1173 | 100,0 | 1173 | 100,0 | 1173 | 100,0 | 1173 | 100,0 |

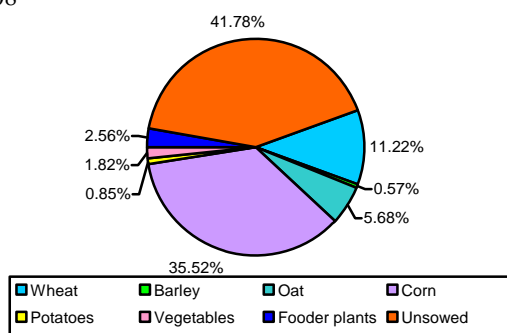
In 2006, 34.19% of the land was unsowed (401 ha), the largest area planted to maize is being found (38.36% of arable) - 450 ha, followed by wheat with 200 ha (17.05 % of arable), the share is less than other plants as follows: 4.26% oats (50 ha), 2.56% of fodder plants (30 ha) 1.45% vegetables (17 ha), 1.28% barley (15 ha) and 0.85% of the area was occupied by potatoes (10 ha).

Next year, all existing common arable crops was distributed as follows: 300 ha in the maize crop (25.58% of arable land), 95 ha for wheat

(8.10% of total arable land), 50 ha for oats (4.26% of arable land), 30 ha planted with fodder plants (2.56% of arable land), 17 ha vegetables (1.45% of arable land), 10 ha for growing potatoes (0.85% 9 and 5 ha cultivated barley (0.43%).

It should be noted that the total arable land of 1173 hectares recorded in 2007, left 666 hectares unsowed (56.77%). Situation encountered in the case of 2008, shows for the structure of arable area, a minimum met the potato - 10 ha (0.87% of total), except that from surface structure disappeared barley crop, the maximum being held by maize 500 ha (42.65% of total arable land). – 10 ha (0,87% din total). Other cultures have seen one 100 ha of wheat and oat crops (8.56% of arable land) and one 30 ha for potatoes and fodder plants (2.56% of arable land). Unsowed land represented 34.36% of total arable land (403 hectares). For period average (Fig. 1) arable land total of 1173 hectares has been allocated as follows: wheat 11.22% (131.67 ha), barley 0.57% (6.66 ha) 35.52% grain maize (416.67 ha) 0.85% potatoes (10 ha) 1.82% vegetables (21.33 hectares) of 2.56% feed plant (30 ha) 41.78% land unsowed (490 ha).

Fig.1. Structure of the arable area (%) - Average 2006-2008



The total production registered for the main plant species grown in Lăcustenii Village during 2006 - 2008 is reflected in table 2. For winter wheat, the production recorded a fall from 460 tons in 2006 to 190 tonnes in 2007, then its level increased to 220 tons in 2008. Average period recorded 290 tonnes for wheat production.

Table 2. Total production (t)

| Specification | Year | | | Average |
|----------------------------|------|------|------|---------|
| | 2006 | 2007 | 2008 | |
| Wheat | 460 | 190 | 220 | 290 |
| Barley | 45 | 5 | - | 16,66 |
| Oat | 75 | 40 | 150 | 88,33 |
| Corn | 1710 | 300 | 750 | 920 |
| Potatoes | 100 | 70 | 30 | 66,67 |
| Vegetables | 68 | 41 | 161 | 90 |
| Fodder plants ^x | 300 | 225 | 300 | 275 |

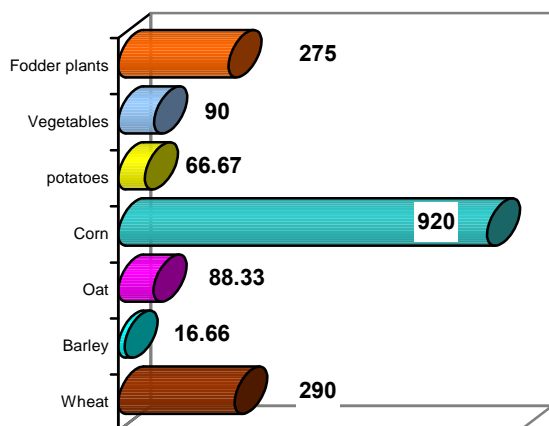
^x equivalent green mass

Production recorded for barley ranged widely from 45 tonnes in 2006 to 5 tonnes in 2007, averaging 16.66 tons, indicating that in 2008 there was no ha cultivated with barley.

Barley production recorded a maximum in 2008 to 150 tonnes and a minimum in 2007 - 40 tonnes, the average being 88.33 tons. On the culture of maize grain is found that yields obtained were located in a sinuous curve from a level of 1710 tonnes registered in 2006 to 300 tonnes for 2007, amounting in 2008 to 750 tonnes. Period average level recorded for maize is 920 tonnes.

Potato production has fallen steadily from a level of 100 tonnes in 2006 to 70 tonnes in 2007, and in the year 2008 production reach only 30 tons, so the average was 66.67 tonnes. Average production of vegetables reported was 90 tons, value achieved through annual participation of 68 tonnes in 2006, 41 tonnes in 2007 and 161 tonnes in the year 2008. In the fodder plant, expressed as green mass production that was achieved recorded an equal value for the years 2006 and 2008 (300 tonnes), and reached a value of 225 tonnes in 2007, the period average was 275 tonnes. Figure 2 shows the total production, the average period. Data on the average yield obtained for the main plant species grown in Lăcustenii Village during 2006 - 2008 are presented in Table 3. When referring to the wheat crop, we see that the yield obtained was 2300 kg / ha in 2006 to 2000 kg / ha in 2007 and 2200 kg / ha for the year 2008, the average period was 2166 kg / ha .

Fig.2. Total production (t) - Average 2006-2008



For barley yield decreased from 3000 kg / ha as recorded in 2006 to 1000 kg / ha in 2007, averaging 2501 kg / ha.

Table 3. The average yield per unit production (kg)

| Specification | Year | | | Average |
|----------------------------|-------|------|-------|---------|
| | 2006 | 2007 | 2008 | |
| Wheat | 2300 | 2000 | 2200 | 2166 |
| Barley | 3000 | 1000 | - | 2501 |
| Oat | 1500 | 800 | 1500 | 1325 |
| Corn | 3800 | 1000 | 1500 | 2100 |
| Potatoes | 10000 | 7000 | 3000 | 6667 |
| Vegetables | 4000 | 2412 | 5367 | 4219 |
| Fodder plants ^x | 10000 | 7500 | 10000 | 9167 |

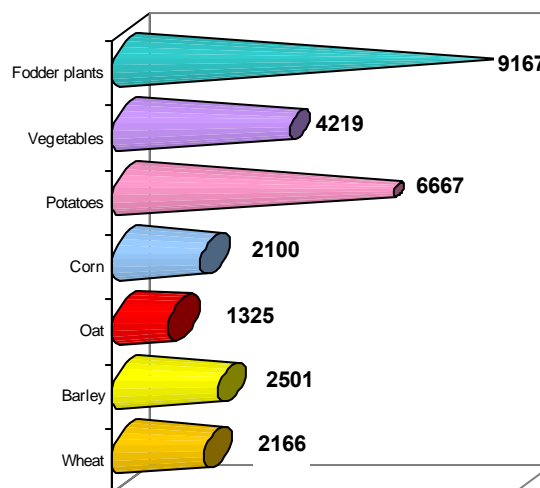
^x equivalent green mass

Barley yields obtained a minimum in 2007 with only 800 kg / ha and two equal values (1500 kg / ha) in 2006 and 2008, the average for the reporting being 1325 kg / ha. Culture of maize grain recorded an average of 2100 kg / ha, average levels being achieved through the annual 3800 kg / ha in 2006, 1000 kg / ha in 2007 and 1500 kg / ha in 2008. The largest yield reported for the potato crop was recorded in 2006 (10000 kg / ha), the values achieved in the coming years are lower (7000 kg / ha in 2007, and only 3000 kg / ha in 2008) so that the average period was 6667 kg / ha.

The level of yield achieved for vegetables decreased from 4000 kg / ha in 2006 to 2412 kg / ha in 2007, then increased to a value of 5367 kg / ha, the average period being 4219 kg

/ ha. The fodder plant maximum level of yield is recorded in 2006 and 2008 (equal level of 10000 kg / ha green mass) and a minimum in 2007 (7500 kg / ha green mass), averaging 9167 kg / ha. Figure 3 presents the average yields, for the period average.

Fig.3. The average yield per hectare (kg) - Average 2006-2008



CONCLUSIONS

1. In structure of arable cultivated area, the highest share of maize is held in 2006, 38.36% (450 ha), 25.58% in 2007 (300 ha) and 42.65% in 2008 (500 ha), following wheat with 17.05% in 2006 (200 ha), 8.10% in 2007 (95 ha) and 8.56% in 2008 (8100 ha). It is noteworthy that in 2008 barley was not cultivated, the area with this crop is gradually reduced from 15 hectares which were cultivated in 2006, to 5 hectares in 2007; while in 2008 is no longer exist.

2. The land remained unsowed occupied 34.19% of arable in 2006, 34.36% in 2008 and in 2007 the percentage of cultivated land was higher than that held by the area under cultivation (56.77%).

3. The highest yields were recorded for maize in 2006 (1710 tonnes) and 2008 (750 tonnes), the lowest being found is in the culture of barley (5 tonnes in 2007) and fruit (13.5 tonnes fruit in 2006). Overall wheat production has been decreasing (from 460 tonnes in 2006 to 190 tonnes in 2007) and

potatoes (100 tonnes in 2006 to 30 tonnes in 2008), other plant species grown in the village recording increases production and maintaining its level constant, the most dramatic increase was recorded for vegetables from a level of 41 tons recorded in 2007 to 161 tonnes in 2008.

4. The average yield shows very low levels in wheat 2166 kg / ha for barley 2501 kg / ha, 2100 kg / ha for maize, 1325 kg / ha in oats, 6667 kg / ha to potatoes, 4219 kg / ha for vegetables, 9167 kg / ha of fodder plants, 1203 kg / ha sturguri and 929 kg / ha for fruit. Significant decreases recorded in 2007 for most plant species grown on barley from 3000 kg as registered in 2006 to 1000 kg / ha in oats from 1500kg/ha to 800 kg / ha, corn yields declined about three times from 3800 kg / ha

to 1000 kg / ha, vegetables, registering a decrease from 4000 kg / ha to 2412 kg / ha in 2007. The only increase on the yield, in 2007 was recorded for fruit, from a level of 794 kg / ha in 2006 to 1000 kg / ha in 2007.

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RESEARCH CONCERNING GROSS PROFIT ANALYSIS IN BROILERS FATTENING

Ion PARVUTOIU¹ , Agatha POPESCU², Mircea Adrian GRIGORAS³

¹Hyperion University, Bucharest Romania

²University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail : agatha_popescu@yahoo.com

³University of Cluj Napoca, 3 Manastur, Cluj Napoca Romania, Email: magrigoras@yahoo.com

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Abstract

The paper aimed to analyze the influence of factors upon Gross Profit. The study was carried out at Breeding Prod Commercial Company, Giarmata, Timis County . The financial results of two series of broilers fattening , S1 and S2, have been comparatively analyzed based on the following specific indicators: variable costs (one day chicken supply , medicines, disinfectants , veterinary services , straw bed, feeding, fuels, electricity , watering , labor force) , fixed costs (rent , interest, fixed assets depreciation , communication and other taxes) , total production costs , cost per kg live weight , gross margin , incomes (incomes coming from marketed broilers and subsidies) , profit and profit rate . This comparison proved that the higher the chickens series size , the higher costs and incomes . The both fattening series have profitable but the series S2 registered higher financial performances because it delivered a higher broiler liveweight , 174,256 kg carried out at a lower production cost , Euro 0.91 compared to the series S1 which has sold 151,087 kg liveweight achieved at Euro 0.95 production cost /kg.

INTRODUCTION

Broilers fattening is considered the most efficient activity in poultry farming and compared to other branches of Animal Production , could also be considered the most efficient one at the moment in Romania [1,6].It has become a real industry of aviculture because the length of fattening is the shortest one , an amount of 2.4 or 2.6 kg live weight is produced in the fastest way , due to the high biological performances of the specialized hybrids, high conversion of fodder into high quality meat with a lower content of cholesterol compared to other sorts of meat and high quality protein [2,3,4] . From an economic point of view , broilers fattening is a very efficient activity as high performances in animal production are achieved at the lower costs compared to other species such as young steers fattening or pig fattening [4, 5,6] .

This paper aimed to present a study regarding economic aspects in broilers fattening in a private farm producing about 170 tons live weight per series in 45 days [7,8] . Gross Profit is the main goal of a farmer and for this

reason the analysis refers to the main factors influencing gross profit : broiler liveweight at delivery , production cost per kilogram liveweight and market price per kilogram liveweight. As we are expecting , the higher the broilers liveweight at delivery , the higher the market price per kg liveweight and the lower production cost per kg , the higher gross profit.

MATERIAL AND METHOD

The paper was carried out at Breeding Prod Commercial Company , Giarmata , Timis County during the year 2008. The data have been collected from two series of broilers fattened at Ortisoara Farm : Series S1 , Spring 2008 (February 4 - March 24, 2008, lasting 45 days) and Series S2 , Fall 2008 (October 23 - December 9 ,2008 , lasting 48 days) . The economic efficiency has been assessed by means of the following specific indicators : variable costs (one day chicken supply , medicines, disinfectants , veterinary services , straw bed, feeding, fuels, electricity, watering, labour force) , fixed costs (rent, interest, fixed

assets depreciation , communication and other taxes), total production costs , cost per marketed broiler, cost per square meter , cost per kg live weight, gross margin , incomes (incomes coming from marketed broilers and subsidies) , profit and profit rate . All these indicators are expressed in Euro at the exchange rate : Euro 1 = Lei 3.78 .

The Gross Profit comparison between the two series of chicken broilers has been analyzed based on the general mathematical model :

$$GP = \sum_{i=1}^n Q_i(p_i - c_i) ,$$

where : GP = gross profit , Q = broilers live weight at delivery , p = market price per kg live weight at delivery and c = production cost per kg live weight.

The deviation of gross profit from a series to another has been determined using the formula :

$$\Delta GP = (Q_1 p_1 - Q_1 c_1) - (Q_o p_o - Q_o c_o)$$

The influence of broilers marketed live weight upon gross profit has been estimated using the formula :

$$\Delta GP(Q) = Q_1(p_o - c_o) - Q_o(p_o - c_o)$$

The influence of production costs upon gross profit has been calculated using the formula :

$$\Delta GP(c) = -(Q_1 c_1 - Q_1 c_o)$$

The influence of market price per kilogram of broiler live weight has been estimated using the formula :

$$\Delta GP(p) = Q_1 p_1 - Q_1 p_o$$

The term “1 “ is used for symbolizing S2 and the term ”o” for S1 .

RESULTS AND DISCUSSIONS

The Variable Costs have been Euro 136,901 for S1 and Euro 152 ,553 for S2. Therefore , the series S2 registered costs by Euro 15,652 or 11.49 % higher than S1 (Table 1).

The variable costs were influenced by the number of chickens at the beginning of fattening : 66,000 heads for S1 and 68,400 heads for S2 and the price per one day chicken :Euro 0.38 /head in case of S1 and Euro 0.36 /head in case of S2.

Medicines, disinfectants and veterinary services counted for Euro 2,037 in case of S1 and Euro 2,005 in case of S2.

Straw bed cost was Euro 463 in case of S1 and Euro 503 in case of S2. This cost item depended on the number of straw ballots used per series (500 ballots for S1 and 800 ballots for S2) and the ballot price .

Feeding costs registered Euro 98,796 for S1 and Euro 113,550 for S2. This costs item was influenced by ratio structure (Prestarter 5.35 % , Starter 16.07 % , Grower 42.85 % , Finisher 35.73 %), the amount supplied of each sort of recipe and the price per recipe . The total amount of combined fodder for S1 was 302,174 kg and for S2 365,673 kg, assuring a food consumption per broiler for the whole fattening period of 4.72 kg for S1 and , respectively 5.54 kg for S2.

Fuel costs recorded Euro 3,187 for S1 and Euro 4,647 for S2. It was determined by the amount of fuel used and its price.

Electricity , required for the functioning of feeding, watering , heating and washing installations , registered Euro 1,852 for S1 and Euro 2,010 .

Watering cost was Euro 265 for S1 and Euro 377 for S2.

Table 1 .Variable Costs by broilers fattening series in the year 2008 (Euro)

| Crt. No | Cost Item | S1 | S2 | Differences S2-S1 |
|---------|--|---------|---------|-------------------|
| 1 | One Day chickens supply | 24,640 | 24,084 | - 556 |
| 2 | Medicines , disinfectants, veterinary services | 2,037 | 2,005 | - 32 |
| 3 | Straw Bed | 463 | 503 | +40 |
| 4 | Feeding | 98,796 | 113,550 | +14,754 |
| 5 | Fuel | 3,187 | 4,647 | +1,460 |
| 6 | Electricity | 1,852 | 2,010 | +158 |
| 7 | Watering | 265 | 377 | +112 |
| 8 | Labor force | 5,661 | 5,377 | - 284 |
| 9 | VARIABLE COSTS | 136,901 | 152,553 | +15,652 |

Labor cost registered Euro 5,661 for S1 and Euro 5,377 for S2. The farm has 6 full time employees (4 workers , 1 zootechnician and an accountant) and also part time employees on the occasion of broilers out and loading in the trucks, manure and straw bed out and fattening blocks cleaning and disinfection.

The Fixed costs registered Euro 6,840 in case of S1 and Euro 6,840 in case of S2. They included rent cost Euro 2,400 (Euro 1,200 per month x 2 months /series), interest to the credit line Euro 2,381 per two months /series, phone calls costs Euro 529 per two months, environment tax and other taxes Euro 220 and depreciation of fixed assets Euro 1,310 (feeding equipment, watering equipment, heating equipment, ventilation equipment, assisting computer , sprayers etc) as shown in Table 2 .

Table 2.Fixed Costs by broilers fattening series in the year 2008 (Euro)

| Crt. No | Cost Item | S1 | S2 | Differences S2-S1 |
|---------|---------------------------------|-------|-------|-------------------|
| 1 | Rent | 2,400 | 2,400 | - |
| 2 | Interest | 2,381 | 2,381 | - |
| 3 | Depreciation | 1,310 | 1,310 | - |
| 4 | Communication | 529 | 529 | - |
| 5 | Environment Tax and other taxes | 220 | 220 | - |
| 6 | FIXED COSTS | 6,840 | 6,840 | - |

Total Production Costs recorded Euro 143,741 for Series S1 and Euro 159,393 . It is a normal situation as long as the second series of broilers raised a higher number of chickens. The production costs of the S2 series have been by Euro 15,652 higher compared to the production costs registered by the S1 series .

The Incomes registered Euro 199,120 for S1 and Euro 183,365 for S2 , of which incomes coming from marketed broilers represented about 71.32 % for S1 and 85.52 % for S2 (Table 3) .

Table 3. Incomes in Broilers fattening by series in the year 2008

| Crt No | Specification | M.U. | S1 | S2 | Differences S2-S1 |
|--------|---|-------------|---------|---------|-------------------|
| 1 | Number of Marketed broilers | Heads | 64,020 | 66,006 | +1,986 |
| 2 | Average broiler live weight at delivery | Kg/head | 2.36 | 2.64 | +0.28 |
| 3 | Broilers total live weight at delivery | Kg | 151,087 | 174,256 | +23,169 |
| 4 | Price per kg live weight | Euro/kg | 0.96 | 0.93 | - 0.03 |
| 5 | Incomes from marketed broilers | Euro/series | 145,043 | 162,058 | +17,015 |
| 6 | Incomes from subsidies | Euro/series | 27,098 | 27,934 | +836 |
| 7 | INCOMES | Euro | 172,141 | 189,992 | +17,851 |

The incomes coming from chickens were determined by the number of marketed broilers (64,020 heads in case of S1 and 66,006 heads in case of S2) , average live weight at delivery per series (2.36 kg/head in case of S1 and 2.64 kg /head in case of S2) , total live weight per series at delivery (151,087 kg for S1 and 174,256 kg for S2) and the market price per kilogram live weight (Euro 0.94 /kg for S1 and Euro 0.90 /kg for S2). Therefore , the income coming from marketed broilers counted for Euro 145,043 for S1 and Euro 163,058 for S2.

The income coming from subsidies represented Euro 27,098 for S1 and Euro 27,934 for S2. According to the regulation in force , the Government subsidy is Lei 1.6 (Euro 0.4231) per every chicken delivered at a live weight higher than 1.95 kg.

Financial Results are presented in Table 4 . Gross Margin recorded Euro 35,240 in case of S1 and Euro 37,440 in case of S2 . As a result , gross profit was Euro 28,400 in case of S1 and Euro 30,600 in case of S2. Therefore , the both series are profitable , but the series S2 is more profitable as costs are lower compared to the costs registered by series S1 and incomes are higher compared the ones registered by S1.

Table 4 .Financial Results in broilers fattening by series in the year 2008 (Euro)

| Crt. No | Specification | S1 | S2 | Differences S2-S1 |
|---------|------------------|---------|---------|-------------------|
| 1 | Incomes | 172,141 | 189,998 | +17,851 |
| 2 | Variable Costs | 136,901 | 152,553 | +15,652 |
| 3 | Gross Margin | 35,240 | 37,440 | +2,200 |
| 4 | Fixed Costs | 6,840 | 6,840 | - |
| 5 | Production Costs | 143,741 | 159,393 | +15,652 |
| 6 | Profit | 28,400 | 30,600 | +2,200 |
| 7 | Profit Rate (%) | 19.75 | 18.44 | - 1,31 |

Finally , the profit rate was 19.75 % for S1 and just 18.44 % for S2. Therefore, the both series of broilers were profitable , but S2 registered a higher profit as an absolute value but a lower profit rate as a relative value .

Gross Profit Analysis without taking into consideration subsidies.

The main purpose was to identify the influence of each factor upon gross profit .It is about broilers live weight at delivery , production cost and also market price per kg live weight.

Table 5 .Gross Profit from marketed chicken broilers in the year 2008 (subsidies excluded)

| Crt No | Specification | M.U. | S1 | S2 | Differences S2-S1 |
|--------|--|----------|----------|----------|-------------------|
| 1 | Broilers total live weight at delivery | Kg | 151,087 | 174,256 | +23,169 |
| 2 | Market price per kg live weight | Euro/ Kg | 0.96 | 0.93 | -0.03 |
| 3 | Production Cost per kg live weight | Euro/ Kg | 0.95 | 0.91 | -0.04 |
| 4 | Gross Profit without subsidies | Euro | 1,510.87 | 3,485.12 | +1,974.25 |

In Table 5 , we may see the calculation of gross profit in relationship with its impact factors .

The deviation of gross profit registered by the S2 series from the gross profit recorded by the S1 series has been calculated according to the formula given below :

$$\Delta GP = (Q_1 p_1 - Q_1 c_1) - (Q_0 p_0 - Q_0 c_0) = (174,256 \times 0.93 - 174,256 \times 0.91) = + 1,974.25.$$

As we may see, gross profit related to the S2 series of broilers is by Euro 1,974.25 higher than gross profit registered by the S1 series .

The analysis continues with the determination of the factors' influence upon gross profit .

The influence of broilers marketed live weight upon gross profit has been estimated using the formula :

$$\Delta GP(Q) = Q_1 (p_0 - c_0) - Q_0 (p_0 - c_0) = 174,256 (0.96 - 0.95) - (151,087(0.96 - 0.95)) = +231.69$$

The figures shows that the influence of the higher marketed live weight is a positive one upon gross profit .The S2 series delivered by 23,169 kg in addition, that is 174,256 kg compared to 151,087 kg delivered by S1.

The influence of production costs upon gross profit has been calculated using the formula :

$$\Delta GP(c) = -(Q_1 c_1 - Q_1 c_0) = - (174,256 \times 0.91 - 174,256 \times 0.95) = +6,970.24$$

Production cost had a positive influence upon gross profit , because in case of S2 , it was Euro 0.91 /kg live weight while in case of S1 it was Euro 0.95 /kg. This positive influence

could be translated as an additional gross profit , based on the reduction of production cost by Euro 0.04 /kg live weight.

The influence of market price per kilogram of broiler live weight has been estimated using the formula :

$$\Delta GP(p) = Q_1 p_1 - Q_1 p_0 = 174,256 \times 0.93 - 174,256 \times 0.96 = - 5,227.68$$

The reduction of market price from Euro 0.95 /kg in spring season to Euro 0.91/kg in winter season of the year 2008 had a negative influence upon gross profit. Its value decreased by Euro 5,227.68.

Table 6. Factorial Analysis of Gross Profit

| Specification | Value (Euro) |
|---|--------------|
| Gross Profit Deviation S2-S1 | +1,974.25 |
| Influence of broilers live weight at delivery | + 231.69 |
| Influence of production cost /kg live weight | +6,970.24 |
| Influence of market price /kg live weight at delivery | -5,227.68 |

This is the real situation when we do not take into consideration subsidies . But, as we have seen in Table 3, subsidies play the part to increase farmer's profit and help him to develop his business from a series to another. If we make a short calculation , the share of subsidies in gross profit is about 90 % for S1 and 88 % for S2.

CONCLUSIONS

- 1.This comparison proved that the higher the chickens series size , the higher costs and incomes .
- 2.The both fattening series have profitable but the series S2 registered have higher financial performances , because a greater live weight was delivered , even though market price was lower , but production cost was lower too and assured a compensation.
- 3.Also, the longer duration of fattening for S2 have had a deep impact on feeding consumption and cost . Feed consumption per marketed broiler was 5.54 kg for 48 days in case of S2 compared to 4.72 kg for 45 days in case of F1 . The length of fattening was longer

, because the slaughterhouse did not respect the contract concluded with the farmer to receive broilers at the specific date.

4.As a final conclusion, the farmers must continuously keep production costs under control . Cost savings are very important and with a deep and positive impact upon gross profit.

5.The present analysis models have underlined the influence of factors such as broilers live weight at delivery, production cost per kilogram live weight and market price per kilogram live weight at delivery upon gross profit in broilers fattening.

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PROFITABILITY ANALYSIS - A STUDY CASE AGROINDUSTRIALA PANTELIMON JOINT VENTURE DAIRY FARMING COMPANY

Ion PARVUTOIU¹ , Agatha POPESCU², Mircea Adrian GRIGORAS³

¹Hyperion University, Bucharest Romania

²University of Agricultural Sciences and Veterinary Medicine, Bucharest, 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail : agatha_popescu@yahoo.com

³University of Cluj Napoca, 3 Manastur, Cluj Napoca Romania, Email: magrigoras@yahoo.com

Key words : *profitability, analysis , dairy farming , Agroindustriala Pantelimon*

Abstract

The paper aimed to present a case study of profitability analysis based on ratio method in order to evaluate the financial performance at AGROINDUSTRIALA Joint Venture Dairy Farming Company . Based on the data collected from Balance Sheet and Profit and Loss Account concluded at December 2009 , the following ratios have been determined: gross profit margin, operating profit margin and net profit margin, return on assets , return on equity and return on capital employed. The obtained results have shown that the profitability of the company has registered an increasing trend in the year 2009 compared to the level recorded in the year 2008, which is a positive aspect of a good management of material and labour resources .

INTRODUCTION

Survivability of a company as well as the dividends received by shareholders depend on the firm long-term profitability [2]. In fact , profitability measures how well a company utilizes its resources in the purpose to generate profit and shareholder value [1]. Profitability is expressed as a ratio between profit and different types of utilized resources. The higher the profit rate , the higher the profitability rate. The aim of financial analysis is to show the firm capability to generate profit in terms of profit margin , which displays the amount of profit the company produces on its sales at the different stages of an income statement. Profitability is usually determined by means of the well known Ratio Method , which takes into account the amount of profit is generated by the use of assets or equity or capital employed [5,6,7].

Profitability is a barometer of firm size , being used as a criterium of comparison or evaluation between various companies from industry, agriculture, commerce etc [2,6].

In Romania , there are many studies concerning the use of Ratio Method , but just a

few applied in the field of animal production and processing industry [3,4].

For this reason, the purpose of the paper is to present a case study of profitability analysis based on ratio method and the data collected from Balance Sheet and Profit and Loss Account in order to evaluate the financial performance in a company dealing with dairy farming , which is an important branch of animal husbandry with a long tradition in our country . The company is a model of how scientific management is applied [8] .

MATERIAL AND METHOD

In order to set up the paper , the basis data have been collected from the Balance Sheet and Profit and Loss Account concluded at December 31, 2009, belonging to Agroindustriala Pantelimon Joint Venture Dairy Farming Company, Ilfov County , situated close to the capital of Romania The analyzed period in 2008 and 2009 .

The following indicators have been used :

-gross profit margin, GPM, showing the profit share of the net sales generated , according to the formula :

Gross Profit Margin = Gross Profit /Net Sales (Revenues)

-operating profit margin , OPM, expressing the weight of operating profit of the net sales :

Operating Profit Margin = Operating Profit/Net Sales (Revenues)

-net profit margin , NPM, reflecting the net profit share of the net sales :

Net Profit Margin = Net Profit/Net Sales(Revenues)

-return on assets , ROA, as a ratio between net income and total assets , showing the how the company assets are involved in making profit:

Return on Assets = Net Profit /Total Assets

-return on equity , ROE, as a ratio between net income and equity , expressing the amount of profit the shareholders earn from their investment in the company :

Return on Equity = Net Profit/ Equity

-return on capital employed , ROCE, as a ratio between net income and capital employed , completing the picture of ROE by adding the company's debt liabilities to equity :

Return on Capital Employed = Net Profit/Capital Employed

The results concerning the ratios mentioned above calculated for the in the year 2009 have been compared to the ratios determined for the year 2008 in order to evaluate the trend of the company profitability from a year to another. All calculations are made in Euros.

RESULTS AND DISCUSSIONS

Net Sales have been Euro 543,664 in 2008 and by 35.4 % higher in 2009 , that is Euro 734,210, being determined in the highest share by marketed milk.

Operating Profit has increased from - Euro 66,645 in 2008 (negative value) to Euro 40,117 in 2009 , taking into account the evolution of operating incomes and expenses.

Gross Profit was Euro 2,193 in 2008 and 18 times higher in 2009, that is Euro 39,648. In the year 2009, it has been positively influenced by operating profit but negatively by financial profit compared to the year 2008, when it was negatively affected by operating profit and positively influenced by extraordinary income and financial profit.

Net Profit increased from Euro 1,842 in 2008 to Euro 33,304 in 2009 , based of gross profit level . The profit tax was 16 % in the both years according to the tax law in force.

Equity has registered a slight decrease of 0.23 % from Euro 657,816 in 2008 to Euro 656,351 in the year 2009.

Table 1. Net Sales, Operating Profit , Gross Profit and Net Profit at Agroindustrială Pantelimon Joint Venture Dairy Farming Company (Euro)

| Indicator | 2008 | 2009 | 2009/2008 (%) |
|------------------------|-----------|-----------|---------------|
| Net Sales | 543,664 | 734,210 | 135.40 |
| Operating Incomes | 870,050 | 1,101,561 | 126.60 |
| Operating Expenses | 936,695 | 1,061,444 | 113.31 |
| Operating Profit | -66,645 | +40,117 | 160.19 |
| Financial Incomes | 772 | 679 | 87.95 |
| Financial Expenses | 0 | 1,148 | - |
| Financial Profit | +772 | -469 | -160.75 |
| Extraordinary Incomes | 68,066 | 0 | - |
| Extraordinary Expenses | 0 | 0 | 0 |
| Extraordinary Profit | +68,066 | 0 | - |
| Total Incomes | 938,888 | 1,102,240 | 117.40 |
| Total Expenses | 936,695 | 1,062,592 | 113.44 |
| Gross Profit | +2,193 | +39,648 | 1,807.93 |
| Profit Tax | 351 | 6,344 | 1,807.40 |
| Net Profit | 1,842 | 33,304 | 1,808.03 |
| Total Assets | 1,125,334 | 1,135,730 | 100.92 |
| Equity | 657,816 | 656,351 | 99.77 |
| Debts | 469,149 | 482,570 | 102.86 |
| Capital Employed | 1,126,965 | 1,138,921 | 101.609 |

Debts have recorded an increase of 2.86 % Euro 469,149 in 2008 to Euro 482,570 in the year 2009.

Capital Employed , that is debt added to equity , has varied from a year to another, registering a similar trend. Thus , in the year 2008, its level was Euro 3,148,595 and in the year 2009, it was Euro 3,001,595, by 5 % less.

Profit Margin Analysis aims to detect consistency or positive/negative trends in a company’s earnings. Normally, the absolute figures from Profit and Loss Account do not tell us or investors very much about profitability . For this reason, the investors or shareholders must look to margin analysis to discern the company’s true profitability . All the ratios GPM, OPM and NPM help investors or managers to keep score , as measured over time , of management’s ability to manage costs and expenses and generate profits . A large growth in sales do little for the company ‘s earnings if costs and expenses grow disproportionately. Also , profit margin analysis shows how many Eurocents there are in each Euro of sales.

Gross Profit Margin has been 0.40 % in the year 2008 and 5.40 % in the year 2009 , that is 13 times higher . This increase shows that the company has used in a more efficient manner its raw materials , labour and manufacturing-related fixed assets to generate profits in the year 2009 compared to the year 2008 . If we look at the basic data, we may see that in the year 2009 gross profit is Euro 39,648 , 18 times higher than its level in the year 2008, Euro 2,193. Net sales have also registered a higher value in 2009 : Euro 734,210 by 35.4 % more than in 2008. This is a reason why the company recorded a higher gross profit margin in 2009.

Operating Profit Margin has registered a negative value , -12.25 % , in the year 2008 and a positive one, 5.46 % , in the year 2009. This increase of 14 times was determined by the evolution of the operating profit which registered + Euro 40,117 in 2009 much more than – Euro 66,645 in 2008 as a consequence the higher rhythm of increase of operating incomes compared to the increase rhythm of the operating expenses in the year 2009. Therefore, this situation is due to the company

management which was able to keep control over operating expenses . The positive trend is directly attributable to a good decision making . **Net Profit Margin** was 0.34 % in the year 2008 and 4.54 % in the year 2009 . In fact, its level is a consequence of the other two ratios level mentioned above, but also its level has been influenced by profit tax . For this reason , this ration is frequently called “bottom line” in discussing a company profitability.

Only taking into consideration the level of all these three ratios mentioned above, the company’s investors and shareholders could draw the conclusion that the income and expense operating items in Profit and Loss account have been correctly kept under control and have determined the firm to reach a higher profit margin.

Table 2 .Profitability Ratios , Agroindustrialia Panteliomn Joint Venture Dairy Farming Company , 2008-2009 (%)

| Indicator | 2008 | 2009 | 2009/2008 (%) |
|----------------------------|-------|-------|---------------|
| Gross Profit Margin | 20.18 | 12.12 | 60.06 |
| Operating Profit Margin | 21.72 | 12.93 | 59.53 |
| Net Profit Margin | 16.95 | 10.18 | 60.05 |
| Return on Assets | 11.52 | 6.98 | 60.59 |
| Return on Equity | 26.73 | 14.00 | 52.37 |
| Return on Capital Employed | 13.09 | 7.67 | 58.59 |

Return on Assets has registered a similar evolution. In 2009 , its level was 2.93 % , 18 times higher than in 2008 when it recorded 0.16 % . The figure shows an increasing trend in 2009 and illustrates a good management concerning the employment of the company’s total assets to make profit.

Return on Equity has been 5.07 % in the year 2009 compared to 0.28 % in 2008. The increase was determined by the higher net profit registered in the last year of study . Despite of its high level, financial analysts consider return on equity ratios below 15-20 % range as representing a non attractive level of investment quality. Therefore , we could

appreciate that even though the level of this ratio is higher , it is still a non satisfactory one. **Return on Capital Employed** has recorded a similar trend in 2009 compared to 2008. So, in 2009, its level was 2.92 % compared to 0.16 % in 2008. The reason consists in the company debt-equity relationship was deeply influencing the result. Therefore, the image given by ROE must always be completed by ROCE in order to be sure if there are disproportions between inside the capital structure . The return on capital employed is , therefore, an important measure of the company 's profitability . Many investment analysts think that factoring debt into a company's total capital provides a more comprehensive assessment of how well management is using the debt and equity it has at its disposal.

CONCLUSIONS

- 1.Profitability measures how well a company utilizes its resources in the purpose to generate profit and shareholder value. Profitability is expressed as a ratio between profit and different types of utilized resources.
- 2.The case study at Agroindustrială Joint Venture Dairy Farming Company shows that the profitability was higher in the year 2009 compared to the year 2008 .
- 3.This situation is due to a better material and labour resource management in 2009 with a deep impact upon expenses and incomes .
- 4.Dairy Farming has been a profitable activity both in the year 2008 and 2009 , but, in the last year of study, profit rate was 3.73 % compared to 0.23 % in 2008 .
5. The values of the analyzed ratios Gross Prof Margin, Operating Profit Margin and Net Profit Margin help the company managers to identify the most important aspects they have to pay attention in the future. It is not easy to reach a certain financial performance , the most difficult is to maintain this good statement .

- 6.First of all it is about expenses related to cows feeding, artificial insemination , veterinary services , water , electricity, labour and other farm inputs which must be kept under control in close relationship to production level . Only assuring a better correlation between costs and incomes it is possible as the company to increase its profit in the next years .

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CONSTRAINTS AND OPPORTUNITIES IN DEVELOPING A MARKET-ORIENTED APICULTURE: CASE STUDY OF APIDAVA SOCIETY

Cristina Bianca POCOL¹, Marioara ILEA¹

¹ University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, 3-5 Manastur, Cluj-Napoca, 400372, Romania, Phone: (00) 40 (0) 264 596 384 ext. 124, Fax. (00) 40 (0) 264 593 792 , E-mail : jp_cristina@yahoo.com, E-mail : milea2005@yahoo.com

Key words: *constraints, opportunities, market, Apidava, development*

Abstract

This paper aims to examine the opportunity in the development of economic structures for a sustainable management of the apicultural sector. The case study was conducted in the SC Apidava, a major honey processor company, whose turnover is due 60% of exports. As research method, the study used the SWOT analysis, which followed to emphasize the role of sustainable management criteria to be applied in order to obtain the expected impact; at the same time, the study aims to obtain a series of qualitative and quantitative indicators that reveal the sustainable management and identify constraints and opportunities for developing a market oriented apiculture: both to the internal and external market.

INTRODUCTION

Studies conducted at national level in the field of beekeeping have as result the emergence of more specialized books and articles, emphasizing in the specific bee works, the beehive location, the description of evolutionary cycle of the bee, continued with the maintenance of bee system on natural seasons and ending with the harvest of bee production, the preparation for hibernation and the control of diseases and pests [4]. Other authors have emphasized in their works on the importance of food chain soil-plant-bee-bee product-human being, demonstrating the importance of bees in increasing the crop production through the action of pollination, which is a true barometer of the ecological balance in nature [5]. The studies on the economic efficiency of beekeeping are very reduced in number [3], the beekeeping being seen as a driver of economic growth through the pollination of entomophilous plants, a way to improve the welfare of the rural population as a source of additional income, a pollution sensor and a factor in maintaining biodiversity. The main goal of the present study is the analysis of an important segment of bee chain – the processor, by identifying the constraints and the opportunities in the development on the internal and external markets.

MATERIAL AND METHOD

The case study was conducted in the Apidava Company, a major honey processor company, whose turnover is due 60% of exports and 40% of the internal market [2]. As research method, the study used the SWOT analysis, which followed to emphasize the role of sustainable management criteria to be applied in order to obtain the expected impact. The effects of the marketing strategy followed by Apidava Company was analysed by using the Focus Group method. The research work involved the following stages: participant recruiting, drafting of the modelling chart, the creation of the focus group, the audio and video recording of the entire approach, the full transcript of the discussion and finally the analysis of data obtained [1]. The purpose of this method was to provide qualitative data, which are of great help in interpreting the results of the entire research regarding the development strategy of Apidava Company.

RESULTS AND DISCUSSIONS

Swot analysis results of Apidava Company are as follows:

Strengths: Apidava Company has a joint capital (40% Dutch capital and 60% Romanian capital) and it is oriented to foreign markets through the

export promotion; the company has recently built a modern processing hall, with a capacity of 1 000 tonnes of honey, that ensures the processing of 60 tonnes/week; Apidava is equipped with a modern laboratory and conduct a series of physical and chemical analysis, whose results are used to select the best honey received from producers; the company is one of the most important processor of organic honey.

Opportunities: the good communication with beekeepers; the expansion of distribution channels, both, on the internal and external markets; the use of attractive designs for the honey packaging; the good collaboration with the beekeepers associations; the good knowledge in the management of honey for export, quality control, and brand development; the opportunity to exploit efficient the material resources, the possibility to conquest new foreign markets by promoting the organic honey, highly appreciated by foreign consumers.

Weaknesses: the traceability of honey is hard to be followed, because the company collects the honey from beekeepers; for this reason, the final consumer loses the opportunity to identify the place of origin of the honey; due to the current crisis, Apidava may register losses from the exports, due to the existing fluctuations on the financial market; the products are not very well known by the Romanian consumers and require promotion.

Threats: the low consumption on the internal market; the difficulty of approaching some segments of bee chain (e.g. small beekeepers, representatives of distributors, retailers), the lack of cooperation in order to establish a dialogue with all actors of bee chain; the influence of the climatic conditions on the Romanian honey production; the penetration of the Chinese honey on the international market; the loss of interest for the beekeeping sector.

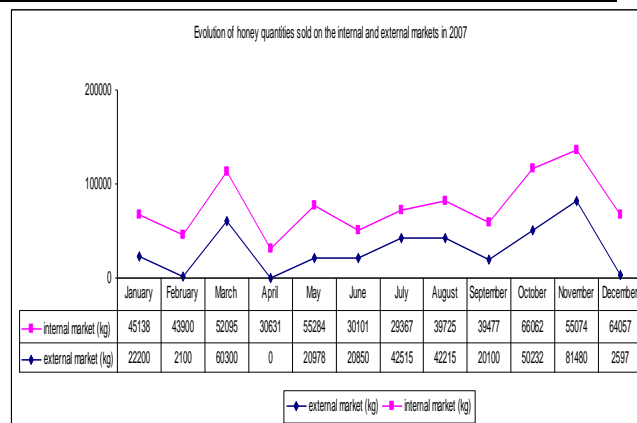


Fig. 1 Evolution of honey quantities sold on the internal and external markets in 2007

Source: own processing after data provided by Apidava Company

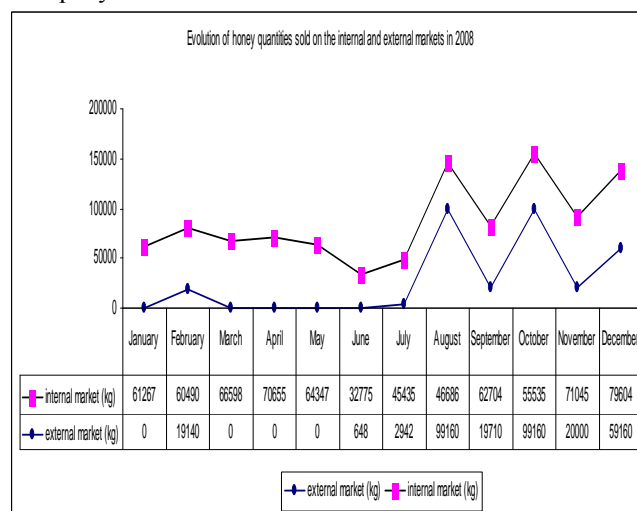


Fig. 2 Evolution of honey quantities sold on the internal and external markets in 2008

Source: own processing after data provided by Apidava Company

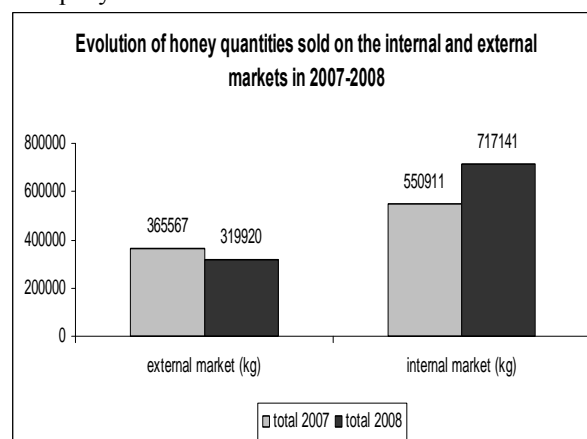


Fig. 3 Evolution of honey quantities sold on the internal and external markets in 2007-2008

Source: own processing after data provided by Apidava Company

Research regarding development strategy at Apidava Company would not have been complete, if it hadn't been pursued by a qualitative research. Data obtained were employed for the identification of motivations at the basis of honey consumption and for the purpose of testing different types of honey packaging.

Research results may be synthesized as follows:

- The three main qualities of honey, perceived by consumers are: the naturalness of the product, the sweetener and medicine quality;
- Although the beneficial effects on the organism are well-known, honey is less frequently employed when compared to sugar. The reasons found are practical "sugar is much easier to use";
- Packaging evaluation was conducted according to esthetical and practical criteria; although the innovative aspects of certain packaging are appreciated, consumers remain faithful to classic glass jars (fig. 4 and fig. 5);



Fig. 4 Simple glass container

The simple glass container was the most appreciated model by the participants to Focus Group, from all points of view, being considered attractive and useful.

It is appreciated for the simply appearance without streaks and shapes and there is no risk that honey remains on the container edges.



Fig. 5 Wrap of plastic with bell and silicon support

The wrap of plastic with bell and silicon support is appreciated because it stops the flow of honey after use due to the silicon substrate, resulting a considerable advantage to avoid the main obstacle related to the use of honey: to get dirt. Although the recipient is made on plastic, the respondents consider that the quantity of 400 grams is acceptable because the product will not stay long enough packaged in order to produce changes in the composition of honey.



Fig. 6 Wrap in the form of sticks

According to the participants at focus group, honey packaged in sticks could be acquired rather by cafes, restaurants, more than by individual consumers, who preferred classical jars, as the above mentioned reasons (fig. 6).

CONCLUSIONS

- Apidava business success is a consequence of the efficient management and marketing strategies and of its tradition;
- The positive evolution of turnover in 2007 and 2008 is due to the important quantities of honey sold on the internal and external markets;
- The future of the company is based on the promotion of organic honey in the context of increasing the education programs for a healthy lifestyle that relies on certain consumption habits and practices that comply with requirements for nutrition, health preservation and recovery, inner and outer beauty.
- The company is opened to the results of scientific research in the field of marketing of bee products;
- Apidava realizes the importance of extension services and of beekeeping regional associations for the development of the whole bee chain.

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PRODUCTION AND MARKET PRODUCTION OF MILK , TRENDS AND PROSPECTS IN ROMANIA

Oana Ecaterina POPA¹, Silviu BECIU¹, Anisoara CHIHAIA¹, Marian CONSTANTIN¹, Florin FRONE¹

¹University of Agricultural Sciences and Veterinary Medicine, Bucharest
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 , E-mail : oanaecaterina_popa@yahoo.com.

Key words : market, production, prospects, milk, Romania

Abstract

The milk market and dairy products in Romania has proved since the beginning to be very difficult to organize and manage. The paper seeks to highlight the main aspects of production and consumption characteristics and events in the market of milk and milk derivatives. In substantiation of these points were used indicators played in relative and absolute numbers respecting the capability of production and consumption possibilities. Interpretative dependencies between production-price-market in the milk market were presented by using flexibility coefficients. Correlative forms of flexibility have delimited the factors influencing the milk market, with reference to the level, direction and intensity of cause factors (production capacity).

INTRODUCTION

This paper seeks to highlight the production and the market for milk product and milk derivatives. To capture the main aspects of forms quite characteristic of this product, analyzes were based on national production. Additionally can be highlighted sources such as: Statistics for the milk and milk products market in 2008 (January 12, 2009), Information Center for Agriculture, Center for Agricultural Management (published in Statistics on Agriculture, according to INS).

MATERIAL AND METOD

Were determined the types of connections (E, E', E'') among the factor considered independent, the number of dairy cows, total milk production per capita (x) and dependent factor milk consumption per capita (y). Methodology allowed in the period 2002-2007, the comparison base to be successive: E with the fixed basis of comparison that was first sub-period (year 2002), E' base of comparison with the immediately preceding sub-period (previous year) E'' in which the sub-period of comparison was a given sub-period considered significant (in this case

was used as the base year 2005, in Romania there was a maximum consumption of milk per capita). Interpretative dependencies could be played by the coefficients E, E' and E'' (<0, = 0, > 0, ≤ 0).

RESULTS AND DISCUSSION

Characteristics of production and milk market / dairy derivatives.

The structure of the milk market, with many products that form the instrument of buy-sale acts, the different nature of partners, the specific conditions in which are manifested and confronted the supply and demand, gives the milk market high complexity nature, reason for which the milk can be considered an available market. This market presents niches, respective consumers groups, more compressed that require a special combination of benefits, for obtaining them are willing to pay a higher price (dairy specialty, specific to one company).

Area (location) of milk market, involves some knowledge of its characteristics related to: supply of milk for fresh consumption and put to processing, territorial dispersion and qualitatively uneven, organization for the supply of milk to consumers whose demand is

characterized by a uniformity of products, delivering milk to customers in major urban centers that makes necessary the accumulation of large milk quantities by specialized operators. Transport activities, conservation , manufacturing, generating additional costs being put onto the price of milk products delivered.

Production capacity, the offer and consumption of milk products in Romania.

All milk offer determines its size, which must be taken into account in the consumer market and self-consumption. The main indicators that determine the size of the market are: the overall size of demand and supply, and the relation volume of sale and purchase.

At national level the quantity of milk from Romania, correlated with the main indices of quality played in Table 1, put in relief actual opportunities for realizing the milk quantities in Romania. Thus, milk fat percentage collected is between 3.39% and 3.75% which is a higher than ISO requirements.

Table 1 Annual production and quality of cows' milk collected by dairies in Romania (year 2006)

| Developing region | Amount of cow milk collected | | Fat content (%) | Protein content (%) |
|----------------------|------------------------------|--------|-----------------|---------------------|
| | Tons | % | | |
| Total country | 1121122 | 100,00 | 3,69 | 3,2 |
| From wich the: | | | | |
| - North-East Region | 243393 | 21,71 | 3,68 | 3,19 |
| - South-East | 92026 | 8,21 | 3,62 | 3,21 |
| - South-Muntenia | 70100 | 6,25 | 3,60 | 3,21 |
| - South-West Oltenia | 17700 | 1,58 | 3,39 | 3,33 |
| - West | 25924 | 2,31 | 3,67 | 3,16 |
| - North-West | 256781 | 22,90 | 3,67 | 3,12 |
| - Centre | 346466 | 30,90 | 3,75 | 3,24 |
| -Bucharest-Ilfov | - | - | - | - |

Source: Own working after physical Production of meat, milk and dairy products, year 2006, INS, Economic Statistics, 2007.

Considered a significant indicator production and consumption of milk per capita, played in Table 2, highlights the significant variations in the dynamic period of 2002-2007.

Guarding the milk production per capita, the annual consumption levels put in relief the following aspects:

- a level of milk production per capita in continues growth
- by comparison to 2002, the percentage rates records the same growth tendency (this maximal relative levels are also reported in recent years).

In the same table, is also emphasized the milk consumption per capita in Romania, from where they can point out the following:

- expressed in liters per capita the consumption for the period 2002-2007, is a growing
- by comparison to 2002, the consumption of all other years records supplements (which are relative values between 4.65% in 2003 and 39.16% in 2005)
- for every year in the analized period was made a comparasion between the consumption and milk production per capita from which it emerged that consumption growth for most years exceeds that of production.

Table 2 Production and consumption of milk per capita in Romania

| Indicators | UM | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------------|---------------------------------|-------|--------|--------|--------|--------|--------|
| Production of milk/capita | Liters of mik/capita | 253,0 | 265,7 | 276,0 | 280,3 | 299,3 | 283,5 |
| | % towards the years 2002 | 100,0 | 105,01 | 109,09 | 110,79 | 118,30 | 112,05 |
| Milk consumption / capita | Liters of milk/capita | 215,0 | 225,0 | 238,9 | 299,2 | 246,6 | 252,8 |
| | % towards the year 2002 | 100,0 | 104,65 | 111,11 | 139,16 | 114,69 | 117,58 |
| | %towards the production/capita. | 84,98 | 84,68 | 86,55 | 106,7 | 82,39 | 89,17 |

Source: Own works after the Statistic Anuary of Romania, INS , 2008

The knowledge and the cause-effect quantified relationships → between the production-market-price in the market for milk.

Using the coefficients of elasticity (E fixed base, chain E 'and constantly maintaining a given year that is considered significant") were determined forms of links between factor considered independent (x) and factor dependent (y), in the period dynamic of 2002-2007.

Influence of milk production per capita (x) on milk consumption per capita (y):

- for the fixed base represented by the year 2002 (E) shows a lack of correlation ($1 > E > 0$), which means that milk production per capita does not influence the consumption of milk.

- in case of the base in chain, respectively the base of previous year (s '), means a dependence of production consumption in the years 2004 and 2005 ($E > 1$), but a reverse form of elasticity in the years 2006 and 2007 ($E < 0$)

- for the comparison base of 2005, the correlative forms are similar to those in the chain (a dependence of production consumption in years 2004 and 2005, $E > 1$ but also a reverse form of elasticity in the years 2006 and 2007, $E < 0$).

Interpretations of the total milk production (x) and milk consumption per capita (y):

- fixed base represented by the year 2002 (E), means a dependency for the years 2004, 2005 and 2007 ($E > 1$), and for other years elasticity absence ($1 > E > 0$),

- the base chain (E ') indicates for most years a lack of flexibility

- by maintaining constant, as a basis for comparison of the year 2005 (E"), is found for the period 2002-2004, a dependence of the total milk consumption ($E > 1$) but a reverse elasticity in the years 2006 and 2007 ($E < 0$).

Table3 Elasticity manifested between the overall milk production and the milk consumption in Romania.

| Year | Changes in elasticity between milk consumption per capita (y) and milk production per capita (x) | | |
|------|--|-----------|----------|
| | E | E' | E'' |
| 2002 | 0 | 0 | 2,886528 |
| 2003 | 0,000175 | 0,92657 | 4,765389 |
| 2004 | 0,000403 | 1,593627 | 13,12427 |
| 2005 | 0,001397 | 16,201 | 0 |
| 2006 | 0,000491 | -2,59354 | -2,59095 |
| 2007 | 0,00062 | -0,47626 | -13,5705 |
| Year | Changes in elasticity between milk consumption per capita (y) and total milk production (x) | | |
| | E | E' | E'' |
| 2002 | 0 | 0 | 2,758313 |
| 2003 | 0,987989 | 0,103394 | 4,135773 |
| 2004 | 1,061439 | 0,0857708 | 23,50549 |
| 2005 | 3,452643 | 0,601985 | 0 |
| 2006 | 0,724877 | 0,036602 | -2,37256 |
| 2007 | 1,274559 | -0,08312 | -7,42545 |

E' → 2005 recordes maximum milk consumption per capita.

Source: Own working, with the data base from the Statistical Anuary of Romania, INS, 2008.

CONCLUSIONS

1. Population households that produce milk for collection centres will not be able allocate money based on milk quality, as it will be impossible to determine milk quality for each individual contribution, and in addition, direct delivery will be stopped by law (as provided laws).

2. Has to be pointed out the role of information the farmer that supplies milk. The information provided is used to: calculate the cost and / or final price of milk and improving farm management.

3. Correlative systems of analysis with the three bases for comparison (E, E ', E") shows successive links uneven nature of milk production that influences consumption. Accordingly, as the increase in livestock also grows the overall production off milk (of course the annual variations for the two indicators had released different levels in the coefficient of elasticity E").

4. The study requires a deepening in microteritorial level and factors of influence must be transformed into strategies and

measures of improvement of the local scenery which constantly needs to build and strengthen the zonal production for milk and milk derivatives.

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RESEARCH CONCERNING GROSS MARGIN FORECAST BASED ON MILK YIELD USING THE LEAST SQUARE METHOD OF REGRESSION ANALYSIS

Agatha POPESCU

University of Agricultural Sciences and Veterinary Medicine Bucharest, Romania, 59 Marasti, sector, Bucharest, 011464, Romania , Phone : +40 21 318 2564/232, Fax:+40 21 3182888, E-mail : agatha_popescu@yahoo.com

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Abstract

The paper aimed to analyze the relationship between milk yield and gross margin , which can be used for forecasting gross margin level. The experiments have been carried out within 19 dairy farms from Iasi, Buzau and Brasov Buzau Counties in the year 2008. The collected data refer to average milk yield/cow/year , income/cow/year, variable costs/cow/year. Taking into account all the 19 farms , the average milk yield was 4,435 kg/cow /year and gross margin Euro 1,277.68 /cow/year. We noticed a weak correlation between these two indicators , $r= 0.174$, and the linear regression function $y = 317.12 + 0.216 b$ has been used in order to forecast gross margin for a milk yield scale ranging between 4,500kg-6,000 milk kg/cow/year. As a conclusion, a farmer who decides to increase the average milk yield of his cows by 2,565 kg , that is from 4,435 kg to 7,000, could get Euro 1,828.82 gross margin, a value which is higher by Euro 551.14 compared to Euro 1,277.68 registered for just 4,435 kg/cow /year average milk production registered at present in the studied dairy farms .

INTRODUCTION

Dairy Farming is an important sector of the Romanian agriculture, as milk is an essential food both human being and animals . Romania's entry into the EU in January 2007 is a real challenge for this sector , imposing the acceptance of Standard Gross Margin (SGM) as a barometer of cow and farm economic efficiency , a measure of business size , a way to classify farms according to their profile and contribution to the overall profit. SGM is calculated per cow and year for each farm, but also at region and country level.

In a dairy farm, its level depends on output per cow and year coming mainly from milk, but also from culled cow, sold calf and collected manure.

The practice has proved that the higher the milk yield/cow/year , the higher the gross margin.

Some studies referring to gross margin calculation in dairy farming in Romania present the situation of small farms in Iasi, Brasov, Buzau , Dolj , Arad counties , areas where there is concentrated an important number of farms and cow stock , even though

the farm size is still very small , but this is the characteristic of almost all dairy farms at present in the country. [8,9,10 11,12,13].

Other studies present the calculation methodology of gross margin and standard gross margin for a certain milk production level in the plain areas [5].

In this context, this study aimed to analyze the level and relationship between milk yield and gross margin in the conditions of Romania , using the data collected from 19 farms operating in Iasi, Buzau and Brasov counties.

Also, another purpose of the study is to forecast gross margin using the Least Square Method of Regression Analysis based on milk yield [1,2,3,4,6,7,14].

MATERIAL AND METHOD

In order to set up the paper , a sample of 19 dairy farms from Iasi, Buzau and Brasov counties has been used. Milk yield, income and variable costs per cow registered in the year 2008 and year have been determined and then utilized to calculate gross margin .

The formula of gross margin calculation is based on the difference between annually cow

output , including income coming from marketed milk , income coming from culled cow and income coming from sold calf and variable costs per cow . Subsidies allotted from the Romanian Government per animal and milk kilogram have not been taken into consideration , because some dairy farmers have received subsidies and other farmers not.

All the calculations are made in Euro.

The following statistical indicators have been determined :

-Average Milk Yield (AMY) , according to the formula :

$$AMY = \frac{X_1 + X_2 + \dots + X_n}{n} ,$$

where n = the number of dairy farms and X= milk yield/cow/year in each farm, n= 19 dairy farms;

-Average Gross Margin(AGM), according the formula:

$$AGM = \frac{Y_1 + Y_2 + \dots + Y_n}{n} ,$$

where Y= gross margin /cow/year in each farm;

-Variance or Dispersion of variables , S², both for milk yield and gross margin, according to the formula :

$$S^2 = \frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n-1} ,$$

-Standard Deviation , S, according to the formula:

$$S = \sqrt{\frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n-1}}$$

-Variation Coefficient , V_%, according to the formula :

$$V_{\%} = \frac{S}{X} \times 100$$

-Correlation Coefficient between Milk Yield and Gross Margin, according to the formula :

$$r_{xy} = \frac{n \sum xy - \sum x \sum y}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}} ,$$

-“t”Test for correlation coefficient , according to the formula :

$$t = r \frac{\sqrt{n-2}}{\sqrt{1-(r)^2}} ,$$

The figures resulted for the calculated “t” have been compared with “t” values in well known tabled for 6 degrees of freedom both for the 95 % level of probability but also for the 99 % level of probability.

-Least Square Method of Regression Analysis , based on linear regression function:

$$Y = a + bx ,$$

where y = gross margin , the dependent variable and x = average milk yield/cow/year, the independent variable .

The coefficients “a” and “b” have been calculated solving the two normal equations given below:

$$\sum y = an + bx ,$$

$$\sum xy = a \sum x + b \sum x^2 ,$$

and using the formulas:

$$a = \frac{\sum y \sum x^2 - \sum x \sum xy}{n \sum x^2 - (\sum x)^2}$$

$$b = \frac{n \sum xy - \sum x \sum y}{n(\sum x^2) - (\sum x)^2}$$

Based on the values of a and b , the gross margin function has been used for forecasting simply by inserting different values for milk yield , starting from 4,500 kg/cow/year up to 7,000 kg/cow/year.

RESULTS AND DISCUSSIONS

Farm Size is small , typical to the most of the dairy farms at present in Romania. The sample

of farms taken into consideration for this study are raising between 5 and 20 cows.

Milk Yield varied between 3,200 kg/cow/year, the lowest level registered in Brasov County and 7,625 kg , the highest level registered in Buzau County.

Income /cow/year varied between Euro 3,048 and Euro 1,816, according to the amount of marketed milk , milk price, culled cow weight and price per kilogram live weight , calf live weight and related price in each county.

Variable costs /cow/year varied between Euro 573 and Euro 1,339, depending on the conditions in each farm concerning replacing heifer price, feeding, watering , sanitary problems etc.

Gross Margin varied between Euro 862 and Euro 1,798/cow/year, its level being influenced by Income and variable costs level.

Table 1. Milk Yield , Income, Variable Costs and Gross Margin/cow/year by farm

| Specification | No of cows heads | Milk Yield Kg/cow/year | Income Euro/cow/year | Variable Costs Euro/cow/year | Gross Margin Euro/cow/year |
|---------------|------------------|------------------------|----------------------|------------------------------|----------------------------|
| Iasi County | | | | | |
| F1 | 14 | 5,700 | 2,755 | 957 | 1,798 |
| F2 | 10 | 5,200 | 2,580 | 1,098 | 1,482 |
| F3 | 5 | 4,430 | 2,310 | 1,217 | 1,093 |
| F4 | 9 | 4,160 | 2,216 | 1,241 | 975 |
| F5 | 10 | 3,330 | 1,926 | 925 | 1,001 |
| F6 | 14 | 3,400 | 1,950 | 937 | 1,013 |
| F7 | 18 | 3,506 | 1,987 | 947 | 1,040 |
| F8 | 16 | 3,800 | 2,090 | 970 | 1,120 |
| F9 | 6 | 3,500 | 1,985 | 573 | 1,412 |
| Buzau County | | | | | |
| F10 | 8 | 3,660 | 1,858 | 996 | 862 |
| F11 | 14 | 4,100 | 1,990 | 820 | 1,170 |
| F12 | 15 | 4,350 | 2,065 | 807 | 1,258 |
| F13 | 16 | 4,600 | 2,140 | 799 | 1,641 |
| F14 | 20 | 5,000 | 2,260 | 779 | 1,481 |
| F15 | 12 | 5,220 | 2,326 | 1,099 | 1,227 |
| F16 | 8 | 5,490 | 2,407 | 1,339 | 1,068 |
| F17 | 12 | 7,625 | 3,048 | 967 | 2,081 |
| Brasov County | | | | | |
| F18 | 6 | 3,200 | 1,816 | 688 | 1,128 |
| F19 | 9 | 4,000 | 2,080 | 654 | 1,426 |

Average Milk Yield at sample level was 4,435 kg with a high standard deviation 1,088.70 and variation coefficient 24.54 % showing that it is a large diversity among farms concerning production performance.

Average Gross Margin at sample level registered Euro 1,277.68 with a high deviation standard 300.28 and variation coefficient

23.50 %, as a result of the high variability among farms concerning breeding conditions.

Table 2. Average Milk Yield , Average Gross Margin, Dispersion, Standard Deviation and Variation Coefficient

| Specification | Average Value | Dispersion | Standard Deviation | Variation Coefficient % |
|-----------------------------|---------------|--------------|--------------------|-------------------------|
| Milk Yield (kg/cow/year) | 4,435 | 1,185,287.00 | 1,088.70 | 24.54 |
| Gross Margin (Euro/cow/yea) | 1,277.68 | 90,170.36 | 300.28 | 23.50 |

The correlation Coefficient between milk yield and gross margin has a low value, 0.174, showing that it is not a strong relationship between these two important economic parameters .

The calculated “t” value for testing the significance of correlation coefficient was 0.728 . The “t” values from the statistical tables for 6 degrees of freedom are 0.707 at the 95 % level of probability and 0.834 at the 99 % level of probability . Comparing the calculated “t” values with the “t” values given in the tables , we may conclude that the calculated “t” value is greater than the value at 95 % level ,meaning that there is evidence of real correlation at the 95 % level of significance but not at the 99 % level.

Least Square Method of Regression Analysis is based on the data calculated and presented in Table 3 and also on the two normal equation as given below:

$$\sum y = an + bx ,$$

$$\sum xy = a \sum x + b \sum x^2 ,$$

After introducing the needed values, the formulas have become :

$$24,276 = 19 a + 84,271 b$$

$$112,302,065 = 84,271 a + 395,148,661 b$$

Using the formulas for “a” and “b” , as mentioned before , their calculated values have been : a= 317.12 and b = 0.216.

As a result, the formula of linear regression function becomes :

$$y = 317.12 + 0.216 x$$

and it should be used to determine the forecast of gross margin for various levels of milk yield.

Gross Margin Forecast .

In order to forecast gross margin based on average milk yield , it was established a series of values for milk yield starting from the actual average of the sample of dairy farms , 4,435 kg/cow/year . The next level of milk yield was considered 4,500 kg and then it was considered an increase of 100 kg /cow/year of milk yield so that to reach 7,000 kg/cow/year. Then replacing the series of values in the formula of Linear Regression Function , the level of gross margin has been determined .

The estimated gross margin values show that for an increase of milk yield from 4, 435 kg to 7,000 kg /cow/year , gross margin will increase from Euro 1,277.68 to Euro 1,828.82.

Therefore, a farmer could get a gain of Euro 551.14 if he increases milk production by 2,565 kg . In other words, for each milk yield increase by 100 kilograms , gross margin could register Euro 21.60 increase.

Table 3.Calculation of Items needed for applying Least Square Method

| No | Milk Yield X | Gross Margin Y | xy | x ² | y ² |
|----|------------------|--------------------|-----------------|------------------------------|-----------------------------|
| 1 | 5,700 | 1,798 | 10248600 | 32490000 | 3232804 |
| 2 | 5,200 | 1,482 | 7706400 | 27040000 | 2196324 |
| 3 | 4,430 | 1,093 | 4841990 | 19624900 | 1194649 |
| 4 | 4,160 | 975 | 4056000 | 17305600 | 950625 |
| 5 | 3,330 | 1,001 | 3333330 | 11088900 | 1002001 |
| 6 | 3,400 | 1,013 | 3444200 | 11560000 | 1026169 |
| 7 | 3,506 | 1,040 | 3646240 | 12292036 | 1081600 |
| 8 | 3,800 | 1,120 | 4256000 | 14440000 | 1254400 |
| 9 | 3,500 | 1,412 | 4942000 | 12250000 | 1993744 |
| 10 | 3,660 | 862 | 3154920 | 13395600 | 743044 |
| 11 | 4,100 | 1,170 | 4797000 | 16810000 | 1368900 |
| 12 | 4,350 | 1,258 | 5472300 | 18922500 | 1582564 |
| 13 | 4,600 | 1,641 | 7548600 | 21160000 | 2692881 |
| 14 | 5,000 | 1,481 | 7405000 | 25000000 | 2193361 |
| 15 | 5,220 | 1,227 | 6404940 | 27248400 | 1505529 |
| 16 | 5,490 | 1,068 | 5863320 | 30140100 | 1.140.624 |
| 17 | 7,625 | 2,081 | 15.867.625 | 58.140.625 | 4.330.561 |
| 18 | 3,200 | 1,128 | 3609.600 | 10.240.000 | 1.272.384 |
| 19 | 4,000 | 1,426 | 5.704.000 | 16.000.000 | 2.033.476 |
| N= | Average X= 4,435 | Average Y=1,277.68 | Σ xy= 112302065 | Σ x ² = 395148661 | Σ y ² = 32795640 |

Of course, it is not easy to increase milk yield. Many factors should be involved in such a process starting with cow feeding, because it is known that milk yield has a low level of heritability (0.20) and in this case feeding is the most important factor to grow up production . Then , it is about reproduction and breeding . Selection pressure by using high breeding value bulls could be also used.

The figures presented above did not take into consideration subsidies coming from the Romanian Government , because in the year 2008, some farmers received subsidies and others not . Also, the second reason was the fact that even though this sector is very much affected by the low milk price , we are not expecting as subsidies to continue to be allotted in the future .

Table 4. Gross Margin Forecast in close relationship to Milk Yield based on Linear Regression Function (Euro/cow/year)

| Milk Yield Kg/cow/year | Gross Margin Forecast Euro/cow/year y = 317.12 + 0.216 x |
|------------------------|---|
| 4,435 | 1,277.68 |
| 4,500 | 1,289.12 |
| 4,600 | 1,310.72 |
| 4,700 | 1,332.32 |
| 4,800 | 1,353.92 |
| 4,900 | 1,375.52 |
| 5,000 | 1,397.12 |
| 5,100 | 1,418.72 |
| 5,200 | 1,440.32 |
| 5,300 | 1,461.92 |
| 5,400 | 1,483.52 |
| 5,500 | 1,505.12 |
| 5,600 | 1,526.72 |
| 5,700 | 1,548.32 |
| 5,800 | 1,569.92 |
| 5,900 | 1,591.52 |
| 6,000 | 1,613.12 |
| 6,100 | 1,634.72 |
| 6,200 | 1,656.32 |
| 6,300 | 1,677.92 |
| 6,400 | 1,699.52 |
| 6,500 | 1,721.12 |
| 6,600 | 1,742.72 |
| 6,700 | 1,764.32 |
| 6,800 | 1,785.92 |
| 6,900 | 1,807.52 |
| 7,000 | 1,829.12 |

CONCLUSIONS

1. Gross Margin (SGM) as a barometer of cow and farm economic efficiency , a measure of business size , a way to classify farms according to their profile and contribution to the overall profit.Net Sales is the barometer of a business. The higher Net Sales, the best business development .
2. SGM is calculated per cow and year for each farm, but also at region and country level.

Its level depends on output per cow and year coming mainly from milk, but also from culled cow, sold calf and collected manure. It also depends on variable costs level . The practice has proved that the higher the milk yield/cow/year , the higher the gross margin

3.The study analyzed the relationship between milk yield and gross margin in the conditions of Romania , using the data collected from 19 farms operating in Iasi, Buzau and Brasov counties.

4. Despite that the farm size in the chosen sample varied between 5 and 20 cows, milk yield registered a high difference among farms : the lowest level 3,200 kg/cow/year in Brasov County and 7,625 kg , the highest level in Buzau County.

5. Gross Margin varied between the lowest , Euro 862, and the highest value , Euro 1,798/cow/year.

6. Despite the expectations, a weak correlation, $r = 0.174$, between milk yield and gross margin was found .

7. The linear regression function , $y=317.12 + 0.216 b$, shows the relationship between these two important parameters of economic efficiency .

8.For the increase from 4,500 kg milk yield to 6,000 kg /cow/year , a farmer could get a gross margin higher by Euro 335.44 compared to Euro 1,277.68 registered for just 4,435 kg/cow /year average milk production registered at present in the studied dairy farms .

9.This study shows how important is as farmers to pay more attention to the increase of milk production in order to grow up financial results , which are in fact the main goal of a farmers .

10.Gross Margin should be used to calculate farmer's profit . This is a quite simple operation , because farmers have to diminish gross margin by fixed costs . In this way , they could know exactly how much profit could gain. Obviously , the profit gain has the similar increasing value like gross margin , because fixed costs do not increase proportionally to milk yield as variable costs do.

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NET SALES ANALYSIS IN A DAIRY FARMING COMPANY

Agatha POPESCU

¹University of Agricultural Sciences and Veterinary Medicine, Bucharest, Romania
59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21
318 28 88 , E-mail : agatha_popescu@yahoo.com

Key words : net sales , analysis, dairy farming , Agroindustrială Pantelimon Joint Venture Company

Abstract

Abstract. The paper aimed to present Net Sales analysis for Agroindustrială Pantelimon Joint Venture Dairy Farming Company. The reference period is 2008-2010 and analysis is based on the data collected from Profit and Loss Account but also from production evidence . The indicators used in this analysis have been : Net Sales absolute and relative deviation and average annual increase rhythm calculated by means of fixed base indexes, milk production and milk price contribution to Net Sales as well as subsidies . As a conclusion Net Sales have registered an increase from Euro 543,664 in 2008 to Euro 734,210 in the year 2009. Direct deliver of whole fresh milk is an alternative for getting a higher price and incomes every day .The company must continue to pay more attention and keep under control average yield, production costs, mainly variable costs , milk cost in close relationship to market price in order be able to manage the future revenues .Break even analysis is very important for any Euro in addition to the company present profit .

INTRODUCTION

Net Sales or Revenue is a measure of how quickly inventory is sold. High Net Sales mean that goods are sold quickly , while low Net Sales mean that goods are sold more slowly [1]. In fact , Net Sales are operating revenues earned by a company when it sells its products . Revenue or Net Sales are reported directly on the Income Statement , in other countries and on Profit and Loss Account in Romania as Sales or Net Sales . Revenue is earned when goods are delivered or services are rendered. In terms of Financial Accounting, there are two sorts of Sales : gross and net sales. Gross Sales are the sum of all sales during a period of time, while Net Sales are gross sales minus sales returns , sales allowances and sales discounts. Gross Sales normally do not appear on an Income Statement. The sales figures reported on Income Statement or Profit and Loss Account are Net Sales. Sales returns are refunds to customers for returned merchandises. Sales allowances are reductions in sales price for merchandises with minor defects , the allowance agreed upon after the customer has purchased the merchandise. Sales discounts are reduced payments from

customers based on invoice payment terms [10,15,16].

Net Sales is a barometer of a business evaluated in current prices but in at a large scale it is considered all the revenues earned by a company during a financial year [2,3,7,8 ,9].

At company level, Net Sales could be approached as : (a) **Total Net Sales** , as a measure of total revenues of the firm , calculated as a sum of revenues obtained from goods sold , services rendered or works carried out for thirties ; (b) **Average Net Sales**, as a measure of average revenue per product physically marketed , something quite similar to the average market price per product ; (c) **Marginal Net Sales** , representing the additional revenue obtained for the increase of the amount of goods sold by 1 ; (d) **Critical or Threshold Net Sales** , representing that revenues of the company covering variable and fixed costs or, in other words, the moment when the company succeeds to produce profit , the so called “break even” point [4].

Net Sales is different in volume and structure from a company to another in terms of activity profile, departments and divisions achievement, product structure, merchandise forms [4] .

The evolution of Net Sales from a year to another could show increase, decrease , stability or oscillating behaviour . However , the most important aspect is as a company to increase its Net Sales from a year to another showing an extent of its business. It facilitates the financial diagnose and evaluation of a company and also is a measure of marketing and management efficiency . Also, it allows to appreciate the position occupied by a company in the market and its image in the business environment [11, 12, 17,18,19].

In Romania , in dairy farming , Net Sales are much influenced by milk production , milk consumption for calves feeding, marketed milk production, milk quality , milk price and subsidies offered by Government.

The purpose of the paper is to present a case study at Agroindustrială Pantelimon Joint Venture Dairy Farming Company, a representative unit in Romania in order to identify the evolution of revenues from year to another and the positive and negative factors influencing Net Sales . [20].

MATERIAL AND METHOD

In order to set up the paper , the basis data have been collected from the Profit and Loss Account at December 2009 of Agroindustrială Pantelimon Joint Venture Dairy Farming Company , Ilfov County , the representative dairy farm in Romania.

Net Sales have been analyzed using the following indicators [13,14] :

-Net Sales dynamics from a year to another , expressed in absolute deviation, according to the formula:

$\Delta I = I_i - I_0$ or $\Delta I = I_i - I_{i-1}$, where I_0 = Net Sales in the year considered term of reference and I_i = Net Sales in the year i , where $i=1,2$, respectively 2008 and 2009;

- Net Sales dynamics expressed in relative deviation , according to the formula :

$$I_{CA} = \frac{I_i}{I_0} \times 100 \text{ or } I_{CA} = \frac{I_i}{I_{i-1}} \times 100, i=1,2.$$

-Net Sales structure , determined with the formula :

$$S\% = \frac{I_i}{\sum_{i=1}^n I} \times 100$$

- Net Sales average annual increase rhythm , according to the formula :

$$\bar{R} = \left(\sqrt[n]{\frac{I_i}{I_0}} - 1 \right) \times 100$$

-Factorial Net Sales analysis according to the formulas:

$$\Delta Q = \sum_{i=1}^n q_i \cdot p_{i0} - \sum_{i=1}^n q_{i0} \cdot p_{i0}, \text{ where } Q = \text{milk}$$

marketed;

$$\Delta p = \sum_{i=1}^n q_i \cdot p_{i1} - \sum_{i=1}^n q_{i1} \cdot p_{i0}, \text{ where } p = \text{milk}$$

price;

-Net Sales “Break even” has been calculated using the following equation system:

$y = ax$ and $y = bx + c$, where y = cumulated incomes in the 1st equation and cumulated costs in the 2nd equation , a =milk price , b = variable cost/milk kg , c = fixed cost/milk kg and x = break even, meaning the amount of milk needed as income to cover cost, no profit or loss.

-Also, Net Sales “Break even” has been determined for a profit increase in the year 2010 in 5 variants : 0.1 , 0.2, 0.3, 0.4 and 0.5 Euro/milk kg, using the equation system: $y = ax$ and $y = bx + c + Pr$, where Pr = profit increase .

Net Sales have been compared from a year to another in order to identify their trend and in fact, the company business trend. All calculations are made in Euros.

RESULTS AND DISCUSSIONS

Net Sales have been Euro 734,210 in the year 2009 by 35.40 % higher than in 2008 (Euro 543,664). Net Sales level was influenced by its structure . The most substantial contribution to Net Sales is given by income coming from marketed milk , which was 79.87 % in 2008 and 83.91 % in the year 2009. The company has got incomes from goods sold , but a very small proportion : 1.48 % in 2008 and 0.38 % in the year 2009. Also the company received

subsidies from Government, according to the laws in force , but not at the planned level. In the year 2008, the company received Euro 101,312 and in 2009 Euro 115,286 subsidies, that is 13.79 % more than in the previous year (Table 1).

Table 1. Net Sales Analysis by income source

| Specification | 2008 | 2009 | 2009/2008 % | Net Sales Structure (%) | |
|----------------------------------|---------|---------|-------------|-------------------------|--------|
| | | | | 2008 | 2009 |
| Net Sales , of which : | 543,664 | 734,210 | 135.40 | 100.00 | 100.00 |
| -Income from marketed milk | 434,268 | 616,078 | 141.86 | 79.87 | 83.91 |
| -Income from Goods sold | 8,084 | 2,846 | 35.20 | 1.48 | 0.38 |
| -Income from operating subsidies | 101,312 | 115,286 | 113.79 | 18.65 | 15.71 |

Net Sales coming from marketed milk have been 31.72 % higher in 2009 compared to 2008 .

This was due to a higher amount of milk delivered in the market , more exactly 1,496,257 kg in 2009 compared to 1,135,901 kg in 2008 . The company sells about 87.17 % of marketed milk production to milk processors and the difference directly to customers by means of Latteria self provider placed at the entrance in the farm .Every day about 690 milk kg are sold directly to the public. In 2009, the company sold 1,290,949 milk kg to milk processors , by 30.36 % more than in 2008 , when it sold 990,259 kg. The amount of milk sold by Latteria increased from 145,642 kg in 2008 to 205,308 kg in 2009, that is by 40.96 % . The amount of marketed milk per year and cow increased from 4,437 kg in 2008 to 5,845 kg in the year 2009 , taking into account that in the farm a number of 320 cows are raised.

Average milk price was Euro 0.38 per kg in 2008 and by 7.89 % higher in 2009, that is Euro 0.41 per milk kg. In fact, the company received a different price depending on the beneficiary : Euro 0.34 per kg in 2008 and Euro 0.35 in 2009 from milk processors and Euro 0.67 per kg in 2008 and Euro 0.80 per kg of whole fresh milk delivered to public .



Photo 1. View from the dairy farm of Agroindustrialia Panteliomn Joint Venture Company

Table 2. Analysis of Net Sales coming from marketed milk production

| Specification | MU | 2008 | 2009 | 2009/2008 % |
|---|---------------|-----------|-----------|-------------|
| Marketed Milk Production (3.5 % milk fat content), of which : | kg | 1,135,901 | 1,496,257 | 131.72 |
| -Marketed milk to processors | kg | 990,259 | 1,290,949 | 130.36 |
| -Marketed milk by Latteria self provider | kg | 145,642 | 205,308 | 140.96 |
| Marketed milk per cow/year | Kg/cow/year | 4,437 | 5,845 | 131.73 |
| Average Milk Price, of which: | Euro/kg | 0.38 | 0.41 | 107.89 |
| -processor price | Euro/kg | 0.34 | 0.35 | 102.94 |
| -Latteria self provider | Euro/kg | 0.67 | 0.80 | 119.40 |
| Income from marketed milk, of which: | Euro | 434,268 | 616,078 | 141.86 |
| -from milk processors | Euro | 336,688 | 451,832 | 134.19 |
| -from Latteria self provider | Euro | 97,580 | 164,246 | 168.31 |
| Share of Income coming from processors | % | 77.53 | 73.34 | 94.59 |
| Income per cow/year | Euro/cow/year | 1,357 | 1,925 | 141.85 |

Income from marketed milk counted for Euro 434,268 in the year 2008 and Euro 616,078 in the year 2009 , meaning more than 41 % in the last year of the analysis. The share of income coming from milk processors was 77.53 % in 2008 and 73.34 % in the year 2009. This

decreased is explained by the fact that direct deliver to clients looks to be more advantaging, taking into account that every day the company get money which could be used according to the needs and milk is delivered as whole fresh milk at an acceptable price of Euro 0.80 per kg .

Taking into consideration , that in the farm are raised 320 cow, the annual income per cow is Euro 1,357 in 2008 and Euro 1,925 in the year 2009 , and this was coming only from marketed milk , without taking into account incomes coming subsidies (Table 2).

Net Sales Factorial Analysis shows that net sales deviation due to the amount of delivered milk production is + Euro 136,935, while net sales deviation due to milk price is only + Euro 44,887 . This is very important for the company and express its good management concerning the increase of milk production from a year to another but also oriented to a better milk price by means of milk sold directly from Latteria self provider for getting incomes every day (Table 3) .

Table 3. Factorial Analysis of Net Sales coming from Marketed Milk

| Specification | MU | 2008 | 2009 | 2009/2008 % |
|--|---------|-----------|-----------|-------------|
| Income coming from marketed milk | Euro | 434,268 | 616,078 | 141.86 |
| Milk Price | Euro/kg | 0.38 | 0.41 | 107.89 |
| Marketed Milk | kg | 1,135,901 | 1,496,257 | 131.72 |
| Net Sales deviation due to milk production | Euro | - | - | +136,935 |
| Net Sales deviation due to milk price | Euro | - | - | +44,887 |

Milk Cost Analysis. In order to proceed to Break even Net Sales analysis it is compulsory to analyze first milk cost. Production costs was Euro 601,851 in 2008 and by 11.21 % higher in 2009, that is Euro 669,355. Of total production costs , about 75 % represented variable costs in 2008 and respectively 74.31 % in 2009 and the remaining belongs to fixed costs . Therefore, variable costs counted for Euro 451,388 in the year 2008 and for Euro 497,406 in the year 2009. Fixed costs were Euro 150,463 in 2008 and Euro 171,949 in the year 2009. Taking into account these figures, the average milk cost was Euro 0.30 per milk kg in the year 2008 and Euro 0.32 per milk kg

in 2009. There are also differences concerning milk cost depending on cost item as follows: milk variable cost : Euro 0.22 /kg in 2008 and Euro 0.23 /kg in 2009 and , respectively, milk fixed cost : Euro 0.07 /kg in 2008 and Euro 0.082 /kg in 2009 (Table 4).

Table 4. Milk Production Cost (Euro/kg)

| Cost Item | MU | 2008 | 2009 | 2009/2008 % |
|-------------------------------|---------|---------|---------|-------------|
| Production Cost , of which : | Euro | 601,851 | 669,355 | 111.21 |
| -Variable Costs | Euro | 451,388 | 497,406 | 110.19 |
| -Fixed Costs | Euro | 150,463 | 171,949 | 114.27 |
| Average Milk Cost, of which : | Euro/kg | 0.30 | 0.32 | 106.66 |
| -Variable Cost | Euro/kg | 0.22 | 0.23 | 104.54 |
| -Fixed Cost | Euro/kg | 0.07 | 0.082 | 117.14 |

Break Even Net Sales Analysis . For the year 2008, the break even point is 0.546 milk kg, which assures sufficient income (Euro 0.38 per milk kg) able to cover milk cost (both variable cost of Euro 0.23 and fixed cost of Euro 0.082). For the year 2009, the break even point is 0.368 milk kg , by about 33 % less than in the pervious year, which is a positive aspect , meaning that the company has increased the amount of marketed milk and milk cost has consequently decreased (Tabel 5).

Table 5. Net Sales Analysis based on “ Break Even Point “

| Specification | MU | 2008 | 2009 | 2009/2008 % |
|----------------------------|---------|-------|-------|-------------|
| Milk Price per milk kg | Euro/kg | 0.38 | 0.41 | 107.89 |
| Variable Cost per milk kg | Euro/kg | 0.23 | 0.22 | 95.65 |
| Fixed Cost per milk kg | Euro/kg | 0.082 | 0.07 | 85.36 |
| Break Even = $x = c/(a-b)$ | kg | 0.546 | 0.368 | 67.39 |

Break Even Net Sales in case of Profit Increase . It was considered that the company is planning an increase of its profit as follows: V1 – Euro 0.1per milk kg , V2 – Euro 0.2 /kg, V3- Euro 0.3 per kg, V4- Euro 0.4 /kg and V5 : Euro 0.5 /kg. In this case , the equation system for determining the break even point must include profit change , as follows : $x =$

$(c + Pr) / (a - b)$. The results for these calculations are given in the table 6 and show that : for Euro 0.1 profit increase, the company must sell 0.89 kg milk in addition, for Euro 0.2 profit increase it must sell 1.42 additional milk, for Euro 0.3 profit increase, it must sell 2.47 milk kg in addition and finally for Euro 0.5 profit increase the company must produce and sell 3 milk kg in addition (Table 6).

Table 6 . Break Even Net Sales in case of Profit Increase

| Specification | a | B | c | Pr | $x = (c + Pr) / (a - b)$ |
|------------------------------|------|------|------|-----|--------------------------|
| Profit increase Euro 0.1 /kg | 0.41 | 0.22 | 0.07 | 0.1 | 0.89 |
| Profit increase Euro 0.2 /kg | 0.41 | 0.22 | 0.07 | 0.2 | 1.42 |
| Profit increase Euro 0.3 /kg | 0.41 | 0.22 | 0.07 | 0.3 | 1.94 |
| Profit increase Euro 0.4 /kg | 0.41 | 0.22 | 0.07 | 0.4 | 2.47 |
| Profit increase Euro 0.5 /kg | 0.41 | 0.22 | 0.07 | 0.5 | 3.00 |

Table 7. Net Sales Analysis based on income coming from Subsidies(Euro)

| Specification | 2008 | 2009 | 2009/2008 % |
|---|---|--|-------------|
| Income coming from subsidies | 101,312 | 115,286 | 113.79 |
| Income planned from Government subsidies, of which: | 131,403 | 160,231 | 121.93 |
| -for marketed milk | 1,135,901 kg x Euro 0.08/kg = Euro 90,872 | 1,496,257 kg x Euro 0.08/kg = Euro 119,700 | 131.72 |
| -for cows | 320 cows x Euro 126.66 /cow = Euro 40,531 | 320 cows x Euro 126.66 /cow = Euro 40,531 | 100.00 |
| Unpaid difference | -Euro 30,091 | - Euro 44,945 | 149.36 |

Net Sales Analysis based on income coming from subsidies. In the year 2008, the farmer received Euro 101,312 and Euro 115,286 in the year 2009 , that is 13.79 % more . According to the law in force, he should have to receive Euro 131,403 in 2008 and Euro 160,231 in 2009 . Therefore, there is a negative difference between the planned subsidies and the received ones , the figures

are : - Euro 30,091 in 2008 and - Euro 44,945 in the year 2009 (Table 7).

CONCLUSIONS

- 1.Net Sales is the barometer of a business . The higher Net Sales, the best business development .
- 2.For the dairy farming company considered in this study , Net Sales increased from a year to another, mainly because of the increase of marketed milk but also of the higher milk price.
3. Direct deliver of whole fresh milk is an alternative for getting a higher price and incomes every day .
- 4.Despite that, Net Sales have registered a positive trend during the period 2008-2009 , the company must continue to pay more attention and keep under control average yield, production costs, mainly variable costs , milk cost in close relationship to market price in order be able to manage the future revenues .
- 5.Profit is a condition for the company survival. Therefore , break even net sales analysis is very important for any Euro in addition to the company present profit .

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THE STATE ENCOURAGEMENT OF INVESTMENTS IN THE DEVELOPEMENT OF VITICULTRE IN REPUBLIC OF MOLDOVA

Angela ŞESTACOVSCAIA

The State University of Moldova, Chisinau, 60 Mateevici A. st., MD-2009, Chisinau, Republic of Moldova, Phone: +373 22 577 460, Fax: +373 22 244 248;
E-mail: shestakovskaja@rambler.ru

Key words: viticulture, quality, financial resources, investment

Abstract

Viticulture is a traditional branch of agriculture in Republic of Moldova, that supplies raw materials for the prossesing branch. In the conditions of market economy the quality of the products has a great importance. So the quality of wines depends on raw material – grapes. There fore the problem of amelioration of vineyard areas is very actual. It is necessary to plant vineyards of quality industrial varieties and to increase production of grapes for fresh consumption. But the planting of new vineyards is needing the state encouragements, beecause a lot of enterprises do not have enough financial resources for such investment.

INTRODUCTION

The development and intensification of the wine sector in the Republic of Moldova will be carried out under the conditions of globalization and world economic crisis, as well as the significant modification of the climate and under the influence of the natural and anthropogenic factors.

That is why the problem for the revitalization of the wine plantations is a current one. Taking into account the importance of the wine sector in the national economy of the Republic of Moldova, an objective of increasing the areas occupied by high quality grape sorts was set. This problem will be easier solved if the state gets involved in the process of creating new vineyards. By this we mean the financial support of the economic agents heading their efforts towards the grapes' plantation. In the Republic of Moldova certain measures regarding the financing of agricultural producers have been elaborated and implemented, one direction going to viticulture.

MATERIAL AND METHOD

The study was carried out on the problem regarding the development of viticulture in the Republic of Moldova in the context of

implementing the “Viticulture and Vinification Recovery and Development Program for the years 2002-2020”, with the Law of Grapes and Wine provisions nr. 57-XVI of 10.03.2006, as well as the Regulations regarding the management of the fund means for the support of the beginning of grapes' plantations. The data of the National Statistics Agency for the period 2000-2009 and of the Ministry of Agriculture and Food Industry was used.

RESULTS AND DISCUSSION

At present, the total area of vineyards constitutes 157.5 thousand ha, which corresponds to 6.3% of agricultural plots and 52% of the multiannual plantations. The volume of grapes in the agricultural production within the last three years evolved from 12% up to 19% in all categories of enterprises in the Republic of Moldova. The grapes' production is predominantly concentrated in the personal and farm households. The share of technical sorts constitutes 85%, and 15% go to table kinds. About 90% of the total area is occupied by European kinds, 9% by “vitis labrusca” species kinds and 1% by stock sorts.

Aiming at increasing the efficiency of the wine sector in the Republic of Moldova, a range of actions regarding the perspectives of development and mechanisms for the management of the branch investments'

activity were undertaken. For the achievement of the objectives set in the Program, the decisive factor is the assurance with financial means that needs enormous personal financial means as long-term credits and other forms of investments.

The expenses needed per 1 ha of vine plantations up to the moment they begin fruiting constitutes around 8-10 thousand US dollars, and the total amount calculated for the accomplishments of the “Grapes’ Plantations’ Recovery and Creation Program” amounts to 800 million US dollars.

Table 1. The expense estimate for the creation of grapes plantations:

| Period | Investments’ demand | Financing sources, MIO of US dollars, of which | |
|-----------------------------------|---------------------|--|--------------------------------|
| | | credits | Own means, foreign investments |
| 2002-2020 Including by stages: | 800 | 400 | 400 |
| 2002-2010 | 313,6 | 156,8 | 156,8 |
| 2011-2015 | 280,0 | 140,0 | 140,0 |
| 2016-2020 | 206,4 | 103,2 | 103,2 |

Source: “The Viticulture and Vinification Recovery and Development Program for 2002-2020”

Taking into account the fact that a great number of agricultural producers don’t have the necessary financial means, the state promotes a policy of supporting the development of viticulture. The state initiated the constitution of several funds of special means, meant for granting financial support in the initiation of vine plantations.

Initially, this fund was constituted of the incomes resulting from the payments fulfilled for the right to use the state property brands. But very often the wine makers refused to make this payment. Later, and namely in 2006, according to the new Law of Grapes and Wine another method of constitution for the fund of investments meant for vine plantations was adopted. The sources of completing the fund are the incomes from the payment of the viticulture’s revitalization tax. The fixed tax is a compulsory payment fulfilled by the producers, importers and exporters of wine production. The taxpayers are natural persons, who carry out their entrepreneurial activity in

the production, processing, trade and/or import of wine production. The tax is fixed as follows for the volumes of the wine production delivered by producers and/or imported, per one decalitre:

Table 2: Taxes collected for the formation of the special investments’ fund for vine plantations’ creation

| | |
|--|--------------|
| 1. Grapes’ wines (natural and special) | 30 lei/dal |
| 2. Cognacs | 20,0 lei/dal |
| 3. Brandy and other grapes’ drinks | 20,0 lei/dal |

Source: Law of Grapes and Wine Nr. 57-XVI of 10.03.2006

The payer calculates independently the tax and pays it before the 20th day of the following month in the paying trimester of the current fiscal month. Within the same period the payers submit to the territorial fiscal body the calculation of the tax according to the standard form approved by the State Main Tax Inspectorate. The fund quantum is fixed annually in the state budget law.

The fund means are used for the partial compensation of the expenses borne by the natural and legal persons when creating vine plantations, including the graft plantations, with plantation material, graft kinds entered into the Register of Plants’ Sorts, as well as stock plantations.

The compensation sum in 2006-2009 constituted 25 thousand lei (around 2.5 thousand US dollars) per 1 ha of net vine plantation area. At the creation of the mother-plantations with planting material of high (“pre-base” and “base”) biological category the compensation increases by 15 thousand lei, and the plantations with sorts for the production of wines with original names by 5 thousand lei.

In the period of 2006-2009, compensations for the vine plantations that had been created since the spring of year 2004 were granted. Increased compensations for the categories of plantations mentioned above (mother-plantations, sorts with original names) were granted beginning with those planted in 2006.

The compensations were granted to natural and legal persons, registered in the way established by the legislation in force, who

activated in the wine domain, regardless of the type of property and the legal form of organization. Since June 2007 exceptions are the wine entities that create wine plantations according to the liabilities of investment included in the purchase-sale contract of the state share of stocks.

These compensations were granted to natural and legal persons, who created vine productions on an area of at least 5 ha and a compact area of at least 1 ha with table grapes' kinds.

Smaller areas, starting from 0.5 ha, are also allowed to be granted compensations in case these are situated compactly near other vine plantations, created previously with sorts of the same agro-biological group, aging at least 1/2 from the period of exploitation for the proper plantation category, with a corresponding degree of care-taking, altogether constituting an area of at least 5 ha.

The undertaking of these measures provided for in the Law of Grapes and Wine nr. 57-XVI, "Viticulture and Vinification Recovery and Development Program for the years 2002-2020", as well the Regulations regarding the management of the fund means for the support of the beginning of the wine plantations lead to significant results in comparison to the preceding period.

Tabel 3. The vine plantation and clearing in the period of mass privatization (1992-2001), thousand ha

| Indicators | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total |
|---------------------|------|------|------|------|------|------|------|------|------|------|-------|
| Plantation, ths. ha | 2,8 | 2,1 | 1,1 | 0,4 | 0,2 | 0,6 | 0,7 | 0,5 | 0,7 | 0,5 | 9,6 |
| Clearance, ths. ha | 5,2 | 4,3 | 4,0 | 4,0 | 14,0 | 10,7 | 8,6 | 12,2 | 8,6 | - | 71,6 |

Source: Data of the Ministry of Agriculture and Food Industry

As we can see in the data presented in the table, the cleared area exceeded 7.5 times the area planted with grapes. This is explained by the fact that getting vineyards in the process of privatization, the new owners gave up the idea of creating new vine plantations and preferred producing autumn wheat, sunflower and other cultures that require fewer investments than the plantation of grapes. At the same time the area planted with vineyards within the years

1992-2001 have a tendency of decreasing. The situation started nevertheless changing since 2003, thus, together with the implementation of the Viticulture and Vinification Recovery and Development Program for the years 2002-2020.

Table 4. The plantation and clearing of the vineyards in the first 8 years (2002-2009) of implementing the Viticulture and Vinification Recovery and Development Program for the years 2002-2020, ths. Ha

| Indicators | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Total |
|---------------------|------|------|------|------|------|------|------|------|-------|
| Plantation, ths. ha | 0,53 | 1,85 | 3,7 | 4,5 | 5,2 | 5,3 | 4,6 | 2,3 | 27,98 |
| Clearance, ths. ha | 4,5 | 1,23 | 0,74 | 1,2 | 1,63 | 3,1 | 2,2 | 1,2 | 15,8 |

Source: The Law of Grapes and Wine nr. 57-XVI

The data in this table prove that in the year 2002 the tendency of the period between the years 1992-2001 was still there, but since 2003 the planted area increased 3.5 times in comparison to 2002, while the cleared area decreased 2.7 times. A stable tendency of growth for the areas planted with grapes can be noticed. In the years 2007-2008 a sudden decrease of the plantations occurred. As a whole, during the period of 2002-2009 the Republic of Moldova witnessed the creation of vine plantations on an area of 27.98 ths. ha in all categories of agricultural enterprises and homesteads (farms).

At the same time we mention that the provisions of the named Program for the period 2002-2010 will probably not be accomplished. The program provided for the plantation of 39.2 ths. ha in the whole republic for this period. The essential reduction of the areas of vine plantations created in 2007-2008 will probably not allow the achievement of the forecasted result. At present the degree of program's fulfillment regarding the vineyards' plantation constitutes 71.4%. Thus it is impossible to plant 11.22 ths. ha in 2010.

Beginning with 2005 the process of financing starts, and as mentioned above, the compensations for the vine plantations created in 2004 were granted to legal persons and natural persons. In the period 2004-2009, 25.6 ths ha were planted, but in order to benefit of the compensations, files were submitted just for 73% of the area. The other 27% did not correspond to the requirements for the granting of subventions. The main cause was that the

plots were smaller than those provided for in the regulation.

Table 5. The allotment of state subventions for the creation of vine plantations in the period 2004-2009

| Indicators | Years | | | | | | Total |
|--|-------|------|------|-------|------|------|-------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | |
| Area presented for compensations, ths. ha: | | | | | | | |
| • Total | 3,7 | 3,9 | 3,3 | 2,9 | 2,8 | 2,1 | 18,7 |
| • Net | 3,4 | 3,6 | 3,0 | 2,6 | 2,4 | 1,9 | 16,9 |
| Accepted compensation amount, ths. lei | 86,7 | 87,4 | 83,8 | 71,7 | 71,5 | 50,6 | 451,7 |
| Fund collections, ths. lei | 26,6 | 82,1 | 34,9 | 39,7 | 43,3 | 29,9 | 256,5 |
| Sum allotted for compensations, ths. lei | 26,4 | 79,9 | 58,5 | 100,7 | 85,3 | 50,5 | 41,1 |
| Including for plantation: | | | | | | | |
| • Preceding year | - | 60,3 | 58,5 | 93,5 | 64,2 | 50,5 | - |
| • Current year | 26,4 | 19,6 | - | 7,5 | 21,0 | - | - |

It may be noticed that the sums allotted for compensations exceed the means collected by the Special Fund. This is explained by the fact that the Fund's deficit is covered by the direct financing from the State Budget. Currently the debt towards the vine growers, who created vine plantations, constitutes approximately 50.6 ths. lei.

CONCLUSIONS

1. The development of viticulture has a special importance since it will assure the vinification branch with high quality raw material;
2. The wine sector is a source of gathering the incomes from the state budget, assures job positions in the village and incomes for the population, but the technical-material base of the branch is old and the resolution of this problem will depend on the creation of the vine plantations;
3. For the accomplishment of these tasks, normative regulations and strategies regarding the financial support for the development of viticulture have been elaborated in the country.

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THE INVENTORY OF PROVISION FORMED FOR THE CONSUMPTION OF QUARRY REHABILITATION AFTER THE EXTRACTION OF NATURAL RESOURCES

Tatiana ȘEVCIUC

The State Agrarian University of Moldova, 44 Mircești Street, MD-2049, Chișinău, the republic of Moldova, Phone: + 37322432815. E-mail: sevciuctatiana@mail.ru

Key words: *provision, inventory, extraction, error, rehabilitation.*

Abstract

The observance of the degree of exigibility of firm's liabilities from the extraction sector needs the formation of long-term provision at the minerals extraction phase in order to cover the consumption of quarry rehabilitation and to turn it into short-term provision. We know that during the business year the firm would reflect the use of the mentioned provision and its adjustment to the change of the extraction conditions and of the rehabilitation of the quarries from which mineral production was extracted. At the end of the business year it is necessary to make the inventory of the formed and used provision. These data are considered when solving the problem of establishing deductible expenses for tax purposes.

INTRODUCTION

The mode of the mentioned provision inventory hasn't been studied in any bibliographic source. It also hasn't been dealt with in any standard act (National Accounting Standard 16 "The accounting of long-term tangible assets", I. F.R. S. "The exploration and evaluation of mineral resources").

The provision inventory is suggested to be made on every open analytic account for each sector of the rented soil on synthetic accounts 427 "Long-term provisions" (this account is missing in the Plan of accounts nowadays) and 538 "The provision for preliminary expenses and payments". The data obtained from the inventory will be used to fill in the gaps in this sector of records as well as to determine correctly the deductible expense for tax purposes.

MATERIAL AND METHOD

The methodological basis of the carried out investigation consists in the universal method of studying of the material, phenomena, processes as well as dialectical method and its components: analysis, synthesis, induction, deduction. The informational support was constituted of the data obtained from the

practice of the stone, sand extraction quarries activities in different locations. The problem studying of numerous standard acts and on the Plan of accounts.

RESULTS AND DISCUSSIONS

In order to make the inventory of the above mentioned provisions, it is necessary to check the accuracy of the provisions formed for the execution phase (the turnover from the credit of account 427 "Long-term provisions", including the adjusted amounts) during the business, year.

Later the share of the long-term provision will be determined which is to become a component of short-term provision on December 31st of the business year. Consequently we take the calculated provision for 1 m³ (1 t) of the soil for rehabilitation of the given sector and of the volume of rehabilitation activities (m³ or t) for the following business year. We transfer to the calculated amount the long-term provision formed at the extraction phase into short-term provision for the extraction phase on December 31st of the current business year, forming the accounting formula: debit 427 "Long-term provisions", credit 538 "The

provision for preliminary expenses and payments”.

The mentioned calculation together with accounting record will be executed at the beginning of the year during which the rehabilitation activities of the given sector are being planned.

Consequently , on the 31st of December of the current business year (the beginning of the next business year during which the, rehabilitation activities are being planned), the amount of the transferred long-term provision will be business year the balance of this account will be calculated according to the rule of balance determination on liability account: the credit turnover (the formed provision) will be added to the initial balance and debit turnover (the transferred provision) will be subtracted.

This balance should be reflected in the balance sheet on December 31st of the current business year, compartment IV “Long-term liabilities”. In account 538 the credit turnover will express the amount of the transferred provision which will be reflected as a balance on December 31st of the current business year. This balance will be presented in compartment V “Short-term liabilities” of the balance sheet.

In the first year of the rehabilitation activities of the given sector and in the following years there will be registered – in the credit of account 427 “Long-term provision” in agreement with account 811 “Basic activities” – in the debit of account 538 “The provision for preliminary expenses and payments”– the use for the provision (the actual amount of the consumptions of the execution of the rehabilitation activities of the given sector), in agreement with accounts 211 “Materials” 213 “Short-term objects of small value” 531 “Debts to the personal regarding work remuneration” 533 “ Debts regarding insurances” etc, - the modification of the provision during the year in both accounts depends on uncovering, extraction and rehabilitation conditions.

At the end of the first year of the execution of rehabilitations activities the provision inventory is suggested to be made beginning with the data from account 538 in the following way:

a) we determine the volume of the rehabilitation activities of the sector that is to be exploited in the following year.

This volume, in case of the uniform firm’s activity, may be calculated as the amount of the share of the activities volume obtained through the proportion of the total volume of rehabilitations activities and the whole sector for the rehabilitation period expressed in years. So calculated activities volume may be increased by the unexecuted activities volume in the previous business year of the firm has the necessary possibilities;

b) we will calculate the provision balance in account 538 “The provision for preliminary expenses and payments” at the end of the current business year through the product of the provision for 1m³(t) of the rehabilitated soil and of the activities volume in m³ or tones planned for execution in the following business year (determined in point a).

This balance constitutes the long-term provision amount transferred on December 31st of the current business year by means of the accounting record, debit 427 “Long-term provisions”, credit 538 “The provision for preliminary expenses and payments”.

This balance will be presented in compartment V “Short-term liabilities” of the balance sheet; c) we add the long-term provision during the year to the balance of the provision at the beginning of the business year (account 538) and we subtract the balance of the provision left on December 31st of the current business year;

d) we compare the amount of the calculated provision (in point b) to the amount of the business year).

The calculated difference may be: - positive, that expresses the provision transferred in addition (provision surplus); - negative, that expresses provision insufficiency or exceeding of the rehabilitation consumptions over the transferred provision.

These differences bring about the following accounting records: a positive one that requires the subtraction of the provision surplus debit 427 “Long-term provisions”, credit 538 “The provision for preliminary expenses and payments”.

The subtracted amount will be determined through the product of the provision for 1m^3 (t) of the rehabilitated soil of the given sector and of the activities volume in m^3 (t) executed over the planned one.

This subtraction is associated to the errors correction traced out during the business year (2).

We consider the accounting record of the subtraction is motivated from economical point of view because from the provision amount we cancel that part of the activities that haven't been executed and consequently it doesn't correspond to the amount of the carried out consumptions in the current business year. In this situation the transferred provision surplus is restored as part of long-term provision.

According to the stipulations I. A. S. 37 "Provisions, contingent assets and contingent liabilities" the provision surplus must be recognized as income by means of the accounting record: debit 538 "The provision for preliminary expenses and payments", credit 612 "Other operational incomes".

We don't accept the rule from I.A.S. 37 "Provisions, contingent asset and contingent liabilities" and the corresponding accounting record because: - in its basis there is a prevalence of technical procedure over economic contents (the amount of the registered consumptions that depend on the provision surplus doesn't diminish, and the excessive provision is deducted being turned into income.

Thus, the amount of this index is equalized, and the financial result of the firm in the business year isn't affected.

The negative part consists in unrealized recognition and in the income unearned but calculated through the transformation of the formed provision in surplus into income. From the economic point of view this procedure contradicts the definition of income this rule diminishes the scientific character of accounting by the recognition of unrealized expenses and unearned income (artificial), it contributes to the violation of the prudence principle because the amount of unrealized consumptions in the amount of the formed

provision surplus not justified will increase the cost of the obtained products.

For example, if in the year "N" a provision surplus of 30,000 lei was formed, and in the year "N+1" a provision of 50000 leis was formed, according to the rules I.A.S. 37 these amounts for both years (80, 000 lei) must be recognized as expenses and income. It is obvious that accounting in this case doesn't reflect reality, - the amount of the exceeding of the rehabilitation consumptions over the long-term provision transferred in the business year makes up the accounting record: - the supplementary transfer of the long-term provision: debit 427 "Long-term provisions" credit 538 "The provision for preliminary expenses and payments".

In this accounting formula the amount will be calculated through the product of the provision for 1m^3 (1 t) of the soil for the rehabilitation of the given sector, and of the unexecuted activities as compared to the planned volume.

After the reflection of the described transactions the long-term provision balance will be calculated at the end of the current business year in account 427 according to the rule of balance determination, in liability account.

The research shows that during the execution of the firm's activities from extraction sector in the business year the real volume of the rehabilitation activities of the given sector may be:

- a) smaller;
- b) equal to the planned volume;
- c) larger than the volume of the rehabilitation activities for the consumptions of which the provision has been transferred.

In these variants a, b, c the provision balance at the end of the year in account 538 will constitute the amount of the long-term provision transferred on December 31st of the current business year, determined for the consumptions that depend on the volume of extraction activities in the following year. In variant (c) this volume will be corrected by the volume of unexecuted activities from previous business year: it will be added to the volume planned for the following business year, if the firm succeeds or if the planned volume of extraction activities for the following business

year is diminished by the volume of the unexecuted activities in the previous business year.

According to these modifications we will calculate the amount of the long-term provision transferred on December 31st to account 538.

After the balance determination in account 538 we will carry out the transaction of supplementary transfer of the long-term provision, variant (a), the transactions of the deduction of the provision surplus, variant (c). Let's examine concisely the first variant (variant a).

Example: Suppose a long-term provision of 2,561,760 lei was formed for the period of 3 years. It was formed for the quarry "Pietris", village Ghidighici for the rehabilitation consumptions of sector nr. 1 at the extraction phase.

The volume of the rehabilitation activities on the condition of uniform rehabilitation, annually will constitute 123,429 m³, and in 11 months (beginning with February 1st 2009) it will be 113,143 m³ of the soil transferred unloaded and straightened in sector nr. 1.

The real volume of the rehabilitation activities and corresponding consumptions in 2009 (11 months) in variant (a) smaller than the planned volume – 98 000 m³, 599,760 leis, (b) equal to the planned volume – 113143 m³, 658,000 lei, (c) exceeding the planned volume – 119, 000 m³, 710,000 lei.

In all the variants the balance of the provision transferred at the beginning of the first business year of rehabilitation (2009) on account 538 is the same – 670,938 lei (113,143×5.93), where 5.93 lei is the amount of the provision for 1m³ of the soil for rehabilitation of sector nr.1. Variant (a) – in accounts 427 and 538 in the first year of rehabilitation (2009) we will register the following transactions and the corresponding data.

1. Long-term provision formation during the period of mining extraction until 31.12.2008 in amount of 2,500,815 lei; debit account 811 "Basic activities" – 2,500,815 lei, credit account 427 "Long-term provisions" – 2,500,815 leis

2. The transfer of the share of the long-term provision to short-term provision on 31.12.2008, in amount of 670,938 lei, debit account 427 "Long-term provisions", credit account 538 "Provisions for preliminary expenses and payments" – 670,938 lei.

3. The formation of short-term provision January 2009 in amount of 60,945 lei (5.93×10,285.7), (10,285.7 m³ represent the volume of the minerals extracted in January 2009): debit account 811 "Basic activities" – 60,945 lei, credit account 427 – 60,945 lei.

4. The reflection of the real consumptions of rehabilitation of sector 1, February – December 2009, in amount of 599,760 lei: debit 538 "The provision for preliminary expenses and payments" – 599,760 lei, credit 211 "Materials", 213 "Short-term objects of small value", 531 "Debts for the personnel concerning work remuneration", etc. – 599,760 lei.

5. The transfer of the share of the long-term provision to short-term provision on 31.12.2009, in amount 624,130 lei (713,934-89,798): debit account 427– 624,130 lei, credit account 538 – 624,130 lei. According to the calculations, the amount of this share constitutes 713.934 (123.429×5.93). But in 2008 the firm executed a 15,143 m³ (113,143-98,000) smaller volume of rehabilitation activities in sector nr.1. Because of that the provision which wasn't used in 2008 constitutes 89,798 lei (15,143×5.93). Logically this amount must remain as a balance of the unused provision in account 538 on 31.12.2009. In addition we plan (if the rehabilitation for sector nr.1 is uniform) also to transfer the share of the long-term provision to short-term provision in order to cover the rehabilitation consumptions in 2009 in amount of 713,934 leis, the total balance of account 538 on 31.12.2008 should be 803,732 leis (713,934 + 89,798), if the enterprise were able to execute rehabilitation activities volume of 138,572m³ (123,429 + 15,143) or (and the volume of unexecuted activities of the last year (2008). As this volume is too large, the

firm plans to execute transporting activities in amount of 123,429 m³ of the soil. Thus the share of the long-term provision transferred to short-term provision on 31.12.2008 will constitute 624,130 lei (713,934 – 89, 798). The inventory is suggested to begin with the data of account 538, as there may occur subtraction operations or operations of supplementary transfer of the long-term provision to current provision.

This inventory include:

a) the determination of the balance of the short-term provision on December 31st of the business year. This amount includes 713,934 leis necessary to cover the consumptions of the execution of the rehabilitation activities in the next year in the volume of 123, 429 m³ of the soil that will be transported and unloaded in sector nr.1;

b) the addition of the balance at the beginning of the year to the amount of the provision transferred from the long-term provision and the subtraction of the balance at the end of the year from the obtained result – 581,140 lei (670,938+624,136-713,934). This amount expresses the share of the provision transferred for the real volume of the activities executed in 2008;

c) the comparison of the transferred provision (formed one) to that used (real consumptions) – 18,620 lei (581,140 - 599,760). The determined amount expresses the difference of real rehabilitation consumptions of sector nr. 1 that exceeds the formed provision; d) the supplementary transfer of the share of the long-term provision to short-term provision (to the difference sum, point

c) – 18620 lei: debit 427 “Long-term provisions” – 18,620 leis; credit 538 “The provision for preliminary expenses and payments” – 18,620 leis.

Then we calculate the turnover and check the accuracy of the balance determination on 31.12.2008:

$$670938+642756-599760= 713934.$$

This balance will be reflected in the balance sheet, compartment V “Short-term liabilities”. According to these calculations, the same way we determine the balance on 31.12.2008 from

account 427 which constitutes 1,187,121 lei (1.829,877-642,620) begin reflected in compartment IV “Long-term liabilities” of the balance sheet. During the execution of the firm’s activities there is a possibility of the following situation: in the last year of rehabilitation the amount of real rehabilitation consumptions of the given sector for the whole period because of different reasons, exceeds the amount of the formed long-term provision. In account 427 the balance of the provision for the given sector is zero. The formation of the supplementary provision is impossible, as the minerals extraction has been finished in the given sector. We consider baseless the use of a part of the long-term provision formed for another sector because of the mixing up of its analytical record. That is why we suggest the above mentioned exceeding to be assigned to other operational expenses without forming the corresponding provision.

CONCLUSIONS

1. At the end of the business year it is necessary to make the inventory of the formed and used provisions and the concerned data will be considered at the problem solution concerning the determination of deductible expenses for tax purposes.

2. At the end of the first year of rehabilitation activities we suggest the provision inventory to be made beginning with the data of account 538 “The provision for preliminary expenses and payments”.

3. At the end of the business year it is necessary to determine the share of the long-term provision that is to be transferred to short-term provision.

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THE INFLUENCE OF INFORMATION SOCIETY DEVELOPMENT TO INCREASE THE COMPETITIVENESS OF ROMANIAN AGRIBUSINESS

Alexandru SİPICA

National Institute for Research and Development in Informatics, Bucharest 8-10 Avenue, sector 1, 011455 Bucharest ROMANIA phone: +40 21.316.0736, +40 21.316.52.62 fax +40 21.316.10.30, E-mail : alexs@ici.ro; sipicalex@yahoo.com

Key words : *Information Society, Internet, Business Environment, Romania*

Abstract

The change of world economy that have been made in last decade, and which is reflected in Romania too, and is manifested by the increasing of economies interconnection and is generated by globalization, lead to new forms of production specially based on outsourcing factors of production, decomposition of production, using on a large scale of information technology, rapid multiplication of small farms as well as is proliferation and diversification of economical associations forms between organization. The paper proposes to shape an image of integration of Information Society technologies in the Romanian agribusiness structure. Combining specific means of agriculture with the new technologies of Information Society offered by IT industry are designed to create a more complete forecast, an efficient way to organize, a advanced system of communication for effective coordination, a complex analysis that could positively influence the dispositions, and a complex control system that is designed for efficient managers that plays an important role on turbulent markets of national and international agribusiness.

INTRODUCTION

The changes of the world economy that have been made in last the decade, and are reflected in Romania too, and are manifested by the increasing of economy's interconnection and are generated by the globalization, and lead to new forms of production especially based on outsourcing factors of production, decomposition of production, using on a large scale of information technology, rapid multiplication of small farms as well as the is proliferation and diversification of economic associations forms between the organizations. It is already accepted that there is a positive effect on the agricultural sector and individual farm by the increasing flow of informations.

Anyway collecting and disseminating informations is often difficult and costly. Information Technology offer the possibility to increase the number of informations provided by all the players of agricultural sector and provide lower cost of information's disseminations.

An understanding of factors associated with adoption and usage of IT in the agriculture will allow the development of strategies for promoting IT technologiys implementation

that is increasing effectiveness and efficiency of the information used in agriculture.

MATERIAL AND METHOD

A vast documentation was need for this paper it regarding the situation of Romanian agriculture and the influence that IT technology brings to our agriculture. Both statistical institutes and literature bring a full image of the Information Technology Society influence in Romanian agribusiness.

RESULTS AND DISCUSSIONS

The Information Society concept was launched at CORFU in 24 – 25 of May 1994 by European Council and opens up previously unsuspected perspectives on socio-economic benefits of computerization including agriculture, and farmers. Without quantifying, the benefits of trade that every computer owner has return on investment in technical computerization and communication is assessed globally worldwide by the ratio between the investment and the value added to this consecutive obtained product. [1]

The management of any activity can be assured in good condition by assuring systematic knowledge of the pattern of that activity in purpose of ongoing assessment by the original provisions and take effective measures to eliminate the negative effects.

As the complexity of activities is increasing, the knowledge of how to conduct is becoming increasingly difficult. Under these conditions organization of information by using computer equipment is indispensable. Certainly good information can be only the results of using computer equipment, of methods and informatics technologies.

New information technologies are the source of economic, political, social and cultural changes. Computerization is a technological mutation origin whose repercussions are numerous on the daily lives political and economic development, social organization. [1]

As it is clear from a study of Romanian agriculture computerization at the end of the millennium 2, the processing information on agricultural holdings was mostly manually. Over 80% of all agricultural holdings did not have another way of processing information (table 1).

Table 1. Usage of information technology situation by year 1999

| Nr Crt | TIPUL EXPLOATAȚILOR AGRICOLE | Valuare Utilizare % |
|--------|--|---------------------|
| 1 | Mostly small farms Vegetable Profile | 0 |
| 2 | Mostly small farms Zootechnical Profile | 3 |
| 3 | Small farms with Industrial Light Profile | 10 |
| 4 | Mostly small farms Profile Services | 10 |
| 5 | Complex medium-sized farms, crop and livestock | 12 |
| 6 | Dairy (milk, oil) and medium-sized service | 15 |
| 7 | Large farms, plant profile | 20 |
| 8 | Large farms, with profile zoo + Industrial | 25 |
| 9 | Research Institutes | 30 |
| 10 | Agricultural management unit (county, banks) | 30 |

Adapted from Stephen Elian "Farm Management Information Systems"

Fantastic information society development in the last decade and the impact that brings the greatest achievement of it in the economy field of the world the Internet places Romania among the top EU countries. As InternetWorldStats informs Romania was in 10 th place in March 2009 by the number of users of IT applications. By 22.215.421 citizen (estimated population) we have 7.430.000 internet user that is 33.4% of

the population that uses more or less information society tools.[9]

Comparing the end of the last millennium with the end of first decade of the new millennium, in terms of number of users share is increasing by 828,8% in 2009 compared to 1999.

By the development of information society point of view, the agriculture situation has not changed much. In the words of Professor Michael BERCA in the first 10 years of so-called transition occurs more frequently a "Management Crisis ". As He said the management crisis is manifested by "Perpetuate a distorted economic behaviour of the producer in relation to the demands of a market economy with the following consequences".[2]

- lack of involvement of managers and operators in applying technologies;
- lack of concern in implementing discipline and lower production costs and economic efficiency effect;

- disregard for the organization of associations in agriculture and agricultural product processing industry of finished product; The Romanian rural economy is the dominant feature large proportion of subsistence farming producing mainly for own market selling a small portion of the products obtained. In addition, the subsistence farms have difficult access to other sources of income and therefore, the welfare of a significant proportion of the rural population depends greatly on the level of profitability of farms. [4]

Table 2. Use of agricultural area by type of organization

| Legal Status | Total agricultural holdings (number) | Farm using agricultural area (number) | Utilized agriculture area (ha) | The average agricultural area used | |
|-------------------------------------|--------------------------------------|---------------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| | | | | On a farm | On a farm using agricultural land |
| Total | 4.256.152 | 4.121.247 | 13.906.701,3 | 3,3 | 3,4 |
| Individual Farms | 4.237.889 | 4.103.404 | 9.102.018,2 | 2,1 | 2,2 |
| Units with legal personality | 18.263 | 17.843 | 4.804.683,1 | 263,1 | 269,3 |

Source: National Statistics Institute

As regards the business of farmer, Romania is facing serious problems from of the state farms with legal personality but also cultivated as evidenced by the data presented in Table 2.

Doing Business in Romania is supported by the effective participation of 18263 total number of holdings inspected by a number of 4256152 holdings and the use of 4.804.683,1 hectares of 13.906.701,3 agricultural area of Romania.

Considering that these farms legal personality they interact with the tax system so it is the minimum necessary to use IT technology These technologies vary from simple solutions such as MS OFFICE products, to more complex solutions, where farm size and financial strength are to increasing to ERP systems, (is software tool that facilitates the integration of all information from an organization into a single platform).

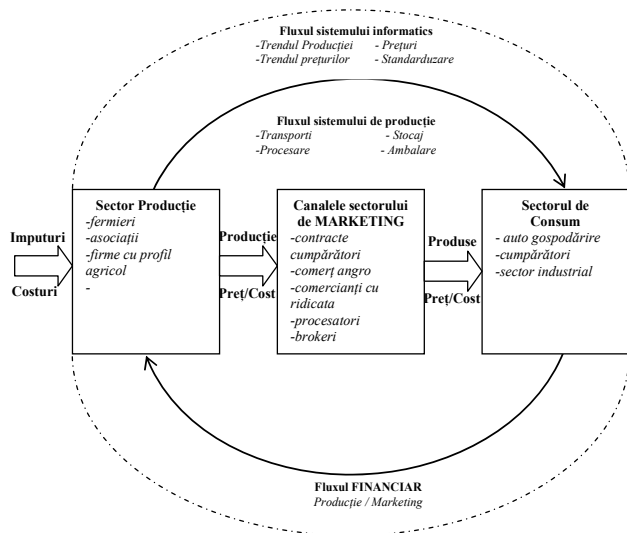


Figure 1. Diagram of an agribusiness system.

ERP systems are modular programs, each area of activity of the company being covered by a specific application, Modules of an ERP system operates using an integrated common database, or can operate independently. It may be listed several categories of modules serving on the effective management of an enterprise:

- ✓ Production: planning and monitoring;
- ✓ Management: records inventory, suppliers payments and receipts;
- ✓ Wages: wage calculation and personnel management information;
- ✓ Accounting: Financial (book keeping);
- ✓ Fixed assets: fixed assets and calculation of liquidation;
- ✓ CRM: customer relationship management;
- ✓ BI: reports, analysis, forecasts;

Considering the productive sectors, information technology comes to support agriculture with various solutions growing crops, production planning and their evaluation. The developed countries are used GIS technology to assess and control inputs.

GIS technologies have a major role in:

- *Environment*. In a first variant, the GIS products are used for inventory territories affected by the pollution (water, land, settlements)
- *Territory planning*. In land monitoring urban development plans, municipal, county, regional, local councils or county can benefit from the contribution made by GIS. As an example we mention: the study of setting up blocks of flats; (maps of gas pipelines, water, information regarding their sizing and thus can control the transport of water and gas on them);

- *Agriculture and Forestry*. The inventory land accompanied by attributes data relating to soil type, quality, use. Monitoring of agricultural land to obtain maximum production. Counting forests, geographical areas (nature reserves, parks) Studies on whether the location of timber exploitation and wood processing plants, and studies of national forest preservation.

- *Transport*. GIS has considerable potential in the management and optimization of urban and regional transport (optimal routes for buses, trams, etc.). Here we include the choice of optimal routes for cars intervention (fire, police, ambulance);

- *Demography*. You can build databases concerning population (age, religion, profession, health, etc..) Associated with an administrative map at the community level, producing various maps relating to the territorial distribution of various types of information resulting in a complex map of that studied area.

- *Land Register*. Inventory and maintenance of spatial data on land in a region Once developed a computerized land registry system, maintenance data is much easier and obtain data on land is done immediately. Channels of Marketing Sector are an important component of a farm in an environment of agribusiness.

This information society makes its presence felt by releasing and increasing use of online marketing. As I mentioned in a previous paper, Direct Marketing is a form of advertising that addresses a set of clear targets in order to generate measurable results, using addressable media, the mail or e-mail [6]. Direct marketing are using intensive database.

Although France, Germany, UK, Austria and Switzerland are countries with a strong tradition of commerce, having also a good development of communications infrastructure (postal services, Internet, telephone, courier), the United States have led the way in which the use of direct marketing technologies operating over 4800 direct marketing for farmers markets operating nationally.

IT technologies have not overlooked any outputs problem. Here there are offered electronically Comet systems that are increasingly used in the world economies.

Electronic Commerce or E-Commerce is the approach of buying or selling via remote data transmission, specific approach to marketing companies expanding trade policy. E-commerce transactions are often classified by the number of partners involved (consumers, retailers, government). With three possible partners combinations there are seven types of electronic commerce B2B (business to business), B2C (business to consumer), C2B (consumer-to-business), C2C (consumer-to-consumer), B2G (business-to-government), G2B (government-to-business), G2C (government-to-consumer). Of these, only two of them have more importance B2B (business to business), B2C (business to consumer). [7]

Developing the technology of electronic commerce has taken a major dimension in Romania. To streamline the tax system and ease access from this specific information Romania will be developing a dedicated system impact of business and government institutions will be based on the concept "Access only through a single point" to digital information of interest in Romania e-Romania web portal. [8]

A very important aspect of the business of IT technologies is deployment, management, and improve where an appropriate quality of systems products, and a production quality of management system too. Quality products play

a vital role in business. The share of agricultural land use in Romania is represented by family farms, known in most literature, "subsistence farms". They hold a significant percentage, about 65,43% of the total agricultural area.

- Value of the percentage of those holdings reached 99,57% of all farms in Romania. According to presence in Table 2. and in Figure 1, we see that the business of these holdings are serious change due to small size and lack of investment.

- Family associations and individuals are allowed

a particular type of holdings, without legal personality. They are, however, included in the Commercial Register. There are 3863 registered family associations and about 9953 individuals authorized.

- In this case there was no interaction with the tax system and is not necessary to use the computer in the managing of their financial activities.

- Manufacturing sector has long suffered firstly due to reduced investment in crop growing and not assigned of resources improvement. This generated serious problems in quality of agricultural products.

Since the farms in Romania are at its lowest level in terms of economic size, returning on average about 1,00 UDE Farm (A unit of European economic size (ESU) responds to a level of standard gross margin (SGM) valued at 1200 euro based on the average value of agricultural production in three years minus the expenditure variables considered standard) [5] and that founded costs of an online store are up to 1000 euro can be used IT technologies for the agribusiness marketing of the farm business environment operates. As developed countries, first in terms of reaching ESU in Europe are the Netherlands reaching 113,93 followed by France with 54,14 and Spain with 20,92.

CONCLUSIONS

1. All revolutions generate uncertainty, breaks and opportunities, and the current revolution is no exception.

The faster we reach the European Society, the better we know how to act, to transform the chances that we offer the advantages. [1]

2. Small units, which otherwise are very large as far as lack of computerized data processing;

3. Application of computer logistics has increased continually in all spheres of human activity;

4. Modernization of agriculture as a permanent action is inconceivable without computer;

5. Advanced technologies can provide efficient information society in the turbulent business environment in agriculture, but they could never resolve the fundamental problem of Romanian agriculture, namely the huge number of subsistence farms.

6. Solving the world food problem depends directly and decisively to increase agricultural production through rational use of productive resources and social and technical modernization of agriculture.[5]

Bill Gates divides business into two categories, saying: "There are two kinds of business: online and at all".

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RESEARCH ON AN INFORMATION EXCHANGE SYSTEM IN THE MARKET SURVEILLANCE

Alexandru SIPICA

National Institute for Research and Development in Informatics, Bucharest 8-10 Avenue, sector 1, 011455 Bucharest ROMANIA phone: +40 21.316.0736, +40 21.316.52.62 fax +40 21.316.10.30, E-mail : alexs@ici.ro; sipicalex@yahoo.com

Key words : *Market surveillance, SUAPEX, The New Approach Directives, Client/server Architecture.*

Abstract

Market surveillance is an essential tool for the implementing directives of New Approaches, especially by taking measures to verify that the products meet requirements of applicable directives and if they act to bring non-compliant products in accordance ones and if there are sanctions are applied then when appropriate.

Creating of a single market for goods is one of the objectives of European Union. The unique market is an area without (internal) frontiers, where by disposition of CE Treaty it is assured the free movement of goods, persons, services and capital. The main objective of the project is the harmonization in accordance with UE law settlement of the standards/rules and the technical-economic/ indicators. Project proposes is to create a technical-economic proper device for the communication and coordination between competent authorities and bodies of surveillance market that helps for: acceleration of standardisation process to UE requirements and settlements; real time markets surveillance capacity increasing; data base creation for different domestic and international economical domain; real time communication between bodies that's involved in.

INTRODUCTION

Market surveillance is an essential instrument for the implementation of New Approach directives, in particular by taking measures to verify that products meet the requirements of applicable directives, if it works to make products, not in compliance and sanctions are applied where applicable

A high level of protection are forecasting by The New Approach Directives, which means that Member States should take all necessary measures that products can be introduced on the market only if they do not compromise safety when they were properly made and used for their purpose.

Create a single market for goods are one of the objectives of the European Community. The single market is an area without borders (internal), in which the free movement of goods, persons, services and capital under the EC Treaty provisions.

The purpose of market surveillance is to ensure that the forecasts of The Directives is uniformly applied in the European Union.

MATERIAL AND METHOD

The material published in this paper nr 1551/6.11.2008 is based to develop a uniform system in the market surveillance on a sector project. Method of research includes a study of similar systems used by authorized institutions.

The European Union requirements and experience in the market surveillance provides theoretical support in achieving of the project.

RESULTS AND DISCUSSIONS

In its annual assessment reports, before the accession, the European Commission warned Romania on several occasions the need to improve the functionality and market surveillance mechanism. The results are not satisfactory or one year after accession, mainly because of weak institutional culture of cooperation and lack of information.

The main public institutional actors of this mechanism could be the competing Community and the Consumer Protection Authority, but important actors should be non -

governmental organization, especially consumer protection association.

Designed to create an information system for the exchange of information on the market is to establish a suitable mechanism for communication and coordination between the competent authorities and the market surveillance bodies to help:

- accelerating the process of adjustment to EU requirements and regulations;
- increase capacity in real-time of market surveillance;
- creating databases on various domestic and international economic field;
- real-time communication between the bodies involved in market surveillance;

In order to achieve the project we defined three kinds of objectives, namely:

- o The main objective then was the research guided is to harmonize standards / rules and computer technical and economic systems indicators with EU legislation and regulations;
- o The principal objectives of the project are:
 - o development of databases updated with cross-sectorial information easily accessible information through the media;
 - achieving faster information transfer between

developed and developed in the globalized industrial environment;

- integration into the system to the latest technical solutions;
- establishing their own structures for embedded systems, custom polarized centers.

The priority objectives of the project will lead to integration, enhancing the quality and performance level of market surveillance activities, to develop internally some strong information base that would provide highly technical services based on high technology by making Network S / T integrated to allow similar integration at the European Technology Platforms.[1]

- o Measurable objectives of the project:

-the reflection of information in the aggregate market area; designing and implementation of databases on economic domain; web site design for market surveillance; developing algorithms for the integration of economic areas based on product outlets.

The market surveillance is all measures, resources and appropriate institutional structures, which provide and ensure the competent authorities, the impartial performance of technical regulations, regardless of origin of products the marketed, with the principle of free competition. [2]

The market surveillance activity is controlled if:

- a) Covered, the products under the Law. 608/2001, with amendments and additions, meet the requirements of technical regulations applicable;
- b) those responsible for marketing and operation of products arrange for the products not to be brought into conformity with the requirements of technical regulations and implement, where appropriate, measures ordered by the control;

The European Union harmonization of market surveillance has been designed and adapted RAPEX. RAPEX is an early warning system and is a powerful watchdog and an excellent example of European surplus value.

RAPEX system established under the General Product Safety Directive (2001/95/EC) aims to provide a rapid exchange of information between Member States and the Commission on measures and actions in relation to consumer products posing a serious risk to health and consumer safety. If the competent national authorities notified product presents a serious risk to consumers and is available in some EU Member State which receives the information is required to inform the Commission and other EU Member States on this product through the Community Rapid Information System on Food Products (RAPEX).

Each EU Member State establishes appropriate mechanisms for communication and coordination between their market surveillance.

In Romania in the law there is a harmonization with the *acquis communautaire* before accession but even that is improving continuously. Proper implementation of primary and secondary legislation is another major problem. Lack of institutional cooperation between the accredited bodies and other ministries, the government agencies or

regulatory bodies leads to incoherent policies and ineffectiveness. [3]

The proposal to create a uniform system of information exchange in the market surveillance, leading to quantify the information in the field and to inform the public and public institutions responsible for consumer protection.

As shown in a study by INMA, on the situation regarding the disclosure of data format preenzare area of market surveillance. Regarding the existence of a data communication system in the Supervisors the situation is shown as in a table 1.[1]

The marketing supervisory is observing that all market supervisors lack of automated information system and as this did not use they software and do not have a network data base. Furthermore it is used at high territorial unit.

Table 1. The existence of an information system for communication to the supervisors

| Nr. crt | Trade Name | Number of positive responses | Number of negative responses missing information) | Obs. |
|---------|--|------------------------------|---|------------------|
| 1 | Automated information system? | 1 | 6 | |
| 2 | Network data bases (BD)? | 2 | 6 | |
| 3 | Used S. (lange, managing DB system, operating system...) | 2 | 5 | |
| 4 | Base software used (language, BD management system, operating system, etc..)? | 4 | 3 | |
| 5 | Web sites design? | 1 | 6 | |
| 6 | Rifle territorial units (computers, servers, network, etc..) | 6 | | 1-Not applicable |
| 7 | Supervisory body features (computers, servers, network, etc..) | 8 | | |
| 8 | Automatic transmission of information from the supervisory body territorial units (existing) | 2 | 6 | |
| 9 | Automatic transmission of information from Supervisors to (existent)competent authority | 1 | 7 | |

Adapted from study and analysis of the types of information and the format of their presentation INMA 2008

Data sending relating to products not carry out usually, the automatically system. ANPC has automatic used by county offices Customer Protection Regional Inspectorates for Customer Protection and National Authority for Customers Protection (ANPC); data on products not being collected in the minutes of finding the contraventions in this system.

The beneficiaries creating a unified information system, information exchange as presented in Phase II of the project sector, are: Ministry of Transport; Ministry of Public Health; Ministry of Labor, Family and Equal Opportunities; Ministry of Development; Ministry of Development, Public Works and Housing; Ministry of Communications and Information Technology; National Authority for Customers Protection; Bureau of Legal Metrology; State Inspection for Control of Boilers, pressure vessels and lifting; Labor Inspection; State Inspectorate for Constructions; General Inspectorate for Emergency Situations; National Regulatory Authority for Communications and Information Technology; Romanian Naval Authority; Romanian Agency for Energy Conservation - Indirect beneficiaries.

Information circuit between market surveillance authorities are playing in the diagram below.

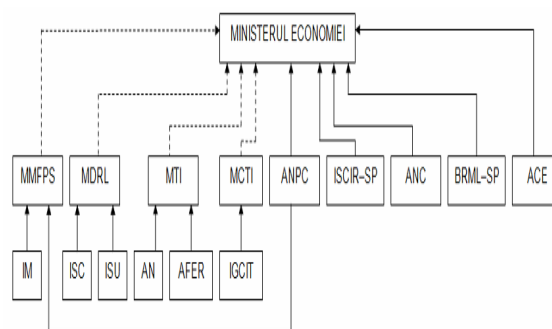


Figure 1. Circuit information between market surveillance authorities (Adapted from: Geta BALASA Identification authorities, market surveillance bodies as providers and recipients of information identified)

Dotted lines are unfunctional links in the present (between ministries and the Ministry

of Economy) but they are proposed to become effective if the program will be managed by the Ministry of Economy.

System structure is in principle a client-server application and a Web service focusing on the same database. The system will be structured in two levels: central and local level. By making "uniform system of information exchange in the market surveillance" will create a database that will record inspected or examined products that tested, accessible database to avoid duplication at national level, to all the inspection bodies.

The computer system that will perform the network administration for information exchange in the market surveillance will be developed using web technologies and databases. The system architecture SUAPEX is composed of three main elements:[4] Data base and server data base; Application Server; Web Server.

Client-server technology is a way to separate an application into two distinct parts. Customer view and edit data in its own computer, while acting as a mainframe server that stores and recovers data. Together the two computers realize their tasks in the fastest way. The server respond to requests made by each client station for information and resources, while making the distribution control information, as well as optimized management processes.

Overall architecture proposed by this project, based mainly on the following considerations:

- the main users require an application to develop data models of hierarchical structure of products, allowing the storage and handling a significant volume of work data, thus implying the need for client applications and a local database;
- the other users, who only consult the database, have no reason to invest in hardware and software infrastructure a simple web browser allows them to obtain the necessary information;
- consultation Web service compliant products.

The application installed on monitoring stations collect the data on all market

surveillance activities that are recorded on those computers. Such data are centralized in a database on a network server. If no connection to the server, the data is stored locally and will be subsequently sent to the server.

The data from monitoring stations are collected according to the time server to avoid the situations in which users change date monitoring systems. Managing and configuring the local are using a separated application by the system administrator

View market data of the of monitoring is done from any location via the web application.

Function within the server computer system for market surveillance is hold by an equipment with powerful features, such as: symmetric multiprocessing; real-time facilities; enhanced data security analysis; improved management [3]

The unit of information exchange in the market surveillance - SUAPEX developed: market surveillance redemption activity; insurance greater consistency of information system; cooperation between authorities will be more practical.

CONCLUSIONS

Citizens, regardless of country living have a right to be protected as such well as the products. Each country depending on the economic specific, geographic location and other factors specific to both create their own institutional framework for market surveillance that would provide the position of the product on the market only safe and appropriate minimum quality requirements.

Although the legislative and institutional framework may vary from country to country, the basic principles of market surveillance are the same.

1. Romanian consumers continuing to be hampered by widespread collusion between firms, abuses of dominant position, procurement and public tenders trick, various unfair trade practices of manufacturers, distributors, wholesalers, retailers

2. The effects of these practices are translated into inflated prices and products and services of poor quality or hidden faults, service for electronic products and appliances made by ghost companies. Refusal to negotiate prices or rates to customers, products and services

sold without any guarantee of quality or duration, failure to change the sold products, products are harmful to human health, etc. In this context the need for effective coordination of activities of institutions, public and private, for a market surveillance to protect consumers really.

3. The market surveillance is carried out on any product or service to any trader regardless of ownership at all stages of life cycle of the product or service provision.

4. Building a database unit, on the products found inconsistent by the market surveillance bodies, and a uniform system for reporting / information it is imperative.

5. The purpose of market surveillance is to ensure that all economic operators who place products on the market comply with the law in force and the public is entitled to genuine protection, regardless of the product and its origin. The Effective control is crucial for market confidence in a product marketing authoritative.

6. The development of this project will be created and operationalized a single computer system, the exchange of information between the Ministry of Economy and other competent authorities, the Ministry of Economy and market surveillance bodies, and the latter, the appropriate mechanism for exchange of information in the market surveillance.

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INSURANCE AS POSSIBILITY OF BUSINESS RISK REDUCING IN AGRICULTURE

Zorica SREDOJEVIĆ¹, Marko JELOČNIK², Jonel SUBIĆ²

¹Faculty of Agriculture Belgrade, Nemanjina Street no. 6, 11080 Zemun, Republic of Serbia
Phone: +381 63 8457412, E-mail: zokas@agrif.bg.ac.rs

²Institute of agricultural economics Belgrade, Volgina Street no. 15, 11060 Belgrade, Republic of Serbia, Fax/phone: +381 11 2972 858, E-mail: marko_j@mail.iep.bg.ac.rs
jonel_s@mail.iep.bg.ac.rs

Key words: *agricultural production, business risk, insurance, premium, damage, compensatory payment*

Abstract

In a group of measures for protection and improvement of agricultural production, important role has insurance activities. Most dominant are insurance of plant production lines (crops and fruits), as like insurance of live stock breeding production lines (heads of domestic and other animal species). Plant production is exposed to influence of many natural factors (positive and negative) from which depend final result of current production cycle (quantum of total yield). At other side, insurance of animal significantly contribute to continuity of live stock breeding production in Serbia. For insurance in agriculture are characterized particular principles and methodology. It is determined with three substantial elements: risk, insurance premium and compensatory payment (compensation after realization of insured case).

INTRODUCTION

We are witnesses of climate changes and often natural disasters, which inevitably cause damages on agricultural products. In those conditions, insurance of agricultural production, besides agro-technical measures and measures of animal protection through veterinary services become economic necessity. Because of its specificity, insurance has great advantages in compare to other methods in risk management, especially in situations when risks are not frequent, but potential damages are huge. Insurance is relation in which insurer takes obligation to compensate damages to other side, insured producer or third person (insurance user), in other words to make certain compensatory payment if insured case happened. Insured person takes obligation to pay to insurer specified premium. According to the Law of insurance of Republic of Serbia, insurance activities are life insurance and non-life insurance. Insurance of agriculture belongs to the group of non-life insurance activities.

Insurance has special obligation in agrarian sector, sector of vital importance for Serbian economic development, to enable solid development and progress, as well as secure and reliable production insurance. Insurance companies are trying to protect

successfully property of their clients, their farm estates, arable fields and animals. That could be achieved by many insurance services for grown crops, fruits, domestic, wild and exotic animals. In other words, agricultural insurance considers insurance of crops, fruits and animals.

MATERIAL AND METHOD

In paperwork is given analysis of most often risks, because of which are insured plant production (crops and fruits) and animal production (animals). Then, based on the data of one of the largest insurance company in Serbia, *Dunav osiguranje A.D.*, are given gross premium rates for some crops and fruits, as for some important animal categories. In further analysis are perceived important damage elements, as possibilities for real estimation of compensatory payments height for lost property.

Production costs are consisting of real expenditure of production process elements. In insurance, premium structure consists of likely elements, so it could be presented as result of two probabilities: probability that harmful event happens and probability of risk intensity during the harmful event. So, production costs in insurance are based on elements of probability account and law of large

numbers, what could be achieved by statistical methods.

RESULTS AND DISCUSSIONS

Basic insurance elements - Insured person could be any physical person or legal entity, which has business ability and interest for insurance. Business ability is equated with general ability for contract signing. Person who is signing insurance contract in own name and for own account is insurance contractor, in other words insured person is person who has proprietary interest. Rights and obligations between insurance company and insured person confirms insurance contract. Therefore, insurance relation starts with contract signing, and it is considered that contract is enter when contractors sign insurance policy, or coverage confirmation. If conditions of insurance predict, contracted relation in specified case starts with insurance premium payment.

User of insurance is person for whom insurance company is obligated to compensate damage reparation when insured case happened. Insured person (physical person or legal entity) could appear, as at property, as well at personal insurance case.

Insurance offer is proposal for Insurance contract signing, so it contains all essential elements of future contract. In Serbian insurance practice role of offerer sometimes takes future insured person, although to creation of insurance relation (contract signing) most often comes like that representative of insurer visits insured person introducing him with all conditions, in other words invites him to enter in insurance relation. Our legislative regulates situations when policy-holder has role of offerer. Insurance offer has to be complete, clear and concrete. It has to imply all insurance elements, as are:

- height of premium;
- covered risk, in other words all situations included with insurance;
- insured subject, subject exposed to some risk (list of agricultural crops which could be insured);
- value of insured property, or interest value (price under which yields are insured, usually expressed in mc/ha, or kg per three or vine stock; per crops and

parcels, or areas under specified crops, usually in ha);

- personal data of insured person (name, tax identification number and address of legal entity, or last name and name, personal number and address of physical person);
- time of beginning and duration of insurance contract;
- dead lines and ways of premium payment;
- additional data (location of agricultural crops and fruits, name of parcel, etc).

Insurance policy is basic document in fruits and crops insurance. It is given after obtaining consent of insurant, and after bid and other needed data collection. Insured person (insuree) and representative of insurance company sign that document. Policy includes next data: contracting parties, subject of insurance, risk, insurance and discovery period, insured value, premium, date of policymaking and signs of contracting parties. The certificate of coverage, which includes all important contract elements, could temporarily change it. Integral parts of policy are way and deadline of premium payment. Amount of premium is specified by premium tariff, depending from insured crops and their location. Premium, as essential insurance element, is price of risk, which contains production price of insurance, in other words price of service increased for accumulation (safety reserve). It consists of functional premium and overhead. While functional premium is in direct function of insurance (its parts are technical premium and contribution for preventive), overhead serves for coverage of all insurance implementation costs. Premium is amount, which is entering into the insurance fund. As important insurance element, it represents creation of money funds for reconstruction of damage property (for compensatory payments of insured values). Premium is price of risk. With its amount, premium has to ensure not only coverage of damages and business costs of insurance company, but also certain profit level for insurer.

Insurance of crops and fruits – According the Law of insurance, crops and fruits insurance is obligated for companies, which are dealing with their production. In this case, insured subjects are agricultural crops and fruits. Way of insured subjects' determination, in area of crops and fruits insurance in some countries, are only one crop, or

few crops. Plant production insurance compensates all damages on insured crops and fruits. Insurance coverage considers:

- cereals, oil crops and other agricultural crops left as seed material (at some cereals straw could be object of insurance too);
- root and rhizome plants – root and tuber;
- vegetable, medicinal and decorative plants – according the breeding purpose;
- hemp – straw and seed;
- flax – straw and seed;
- hop – grain;
- poppy – seed and opium;
- tobacco – leaf;
- fodder crops and meadow grass – fodder mass and seed;
- nursery plants – plants;
- orchards and vineyards – yields (fruit), or three (vine stock);
- young orchards and vineyards – before fruits giving – three or vine stock;
- young forest plants - three;
- fruit, vine and forest nursery plants – rootstock;
- willow for wood industry (knitting - furniture);
- reed – straw.

On plant production affects many natural factors. Most important are: deficit or surplus of moist in soil and air (drought, excessive rainfalls); to low or to high soil and air temperature (frost, thermal shock); hail; storm; flood; fire; plant diseases; pests; weeds; etc. Obligation from insurance contract is compensation due to damage or destruction of crops and fruits, while fruits are unpicked or crops are un-harvested, because of occurrence of basic and additional risks.

Way of premium assessment (its height) is determined with premium tariff, which has some specificity. At crops and fruits, rating is done according classes of crops sensitivity and risk zones (classes of danger), risk areas comprehended by insurance.

Tariff of premium XIII (according *Dunav osiguranje A.D.* insurance company) is using for insurance of crops and fruits, in tariff groups by general and certain conditions, from next dangers (risks), in basic insurance from hail, fire and thunder, and in additional insurance from storm,

flood, spring frosts, rime, and quality loss at cereals, fruits and table grape (Table 1).

After risk event happen, which under policy conditions has character of insured case, or after application of insured case, insurer is obligated to estimate harmful consequences. Insurer usually employs agricultural experts to estimate damage. All estimation methods, generally, are dividing into group of experiential (subjective) and measured (objective) methods. More often are used next methods: visual estimation; measuring; counting (analytical method); estimation with protective, control samples; and estimation according researching results.

Under compensatory payment are considered all expenditures from insurance fund for unexpected insured cases, in other words for accomplished economically harmful events. Upper compensation limit is insured amount from insurance contract (*insurance policy*). Compensatory payment height is determined from insured amount, if value of achieved yield is equal or higher than insured sum, or from real yield value, if that value is lower than insured sum. Compensatory payment is estimated in procedure so called damage liquidation. Its amount depends from crops or fruits value, except if crop is insured on lower amount than its own value, when compensation is estimated from insured sum. If damage on crops (fruits) is less than 5%, than it has not be paid, while if it is 85% or more, it could be considered as total damage. In that case, compensatory payment is reducing for costs of unfinished activities, at least for 15%. Insurance contract is signing for specified or indefinite time. Contract issued for certain duration, over one year, is long-term insurance. Short-term insurance of crops and fruits is signing for period of one year or less.

Animal insurance - Animal insurance contract is signing based on legislation and business regulations – insurance conditions, premium tariff, professional guidelines, etc. Contract has specified duration, usually one year or less (animals fattening), short-term insurance; or few years, long-term insurance, where each year, insurance policy has to be issued with indefinite duration. Individual insurance represent insurance when animals of one insured person (farm or agricultural producer) are insured with one policy. According former experience this insurance shows that as form, does

not have real perspective in private sector. Collective insurance exists in case when insurance contractor insures animals of many insured persons with one policy. So based on insurance of bigger number of same kind of animals in certain area could be done risk dispersion, what as result have increase insurance sample and decrease premium rates, giving on that way better conditions than individual animal insurance. A previous Serbian experience shown that for improvement of animal insurance in private sector is in most part responsible veterinary service, which until now, more or less followed and observed these actions. In other words, it was available to insuring companies, as at contract signing, as at estimation of incurred losses. Before payments of insurance premium, it is desirable checking of all heads of animal by insurers', or by local veterinarian. Subject of special conditions for animal insurance on collective basis, with, or without medical care are:

- horses from 4 months up to 15 years old (or up to 18 years, if they are insured continuously for 9 years);
- cattle from 2 months up to 12 years old (or up to 15 years, if they are insured continuously for 9 years);
- pigs from 2 months and maximum 20 kg weight up to 5 years old;
- sheep from 3 months up to 6 years old;
- dogs from 6 months up to 10 years old;
- bees and other animals which could be subject of mass insurance.

By premium rates of Tariff for animal insurance (Table 2), animal are insured on collective basis at insured company. In first risk category are rated animals, which have, excellent hygienic conditions of accommodation, keeping and alimentation, with possibility of daily curing, by positive technical solutions. In second risk category are rated those one who have good hygienic conditions of accommodation, keeping and alimentation, with curing possibility. On premium rates of this tariff could be approved discounts against number of insured heads of animal. Insurer is obligated to pay compensatory payments for damages caused by:

1. Mortality of insured animals from disease, or by accident;
2. Compulsory slaughtering of insured animals caused by disease, or accident, or in cases when animal is faced with immediate death danger (loss

reducing). In case that animal is not faced with immediate death danger, but it becomes useless for any purpose, and that condition can not be changed with cure treatment, insurer is obligated to pay compensation, because animal holding is economic unprofitably, causing the need for compulsory slaughtering. Emergency slaughtering caused by economic reasons could be proved only at these chronicle diseases, which have their beginning, and which were cured after start of insurer obligation. For that kind of slaughtering, insurance company would not allow or pay compensation if damages are caused by: disease after long-lasting, excessive and unreasonable animal exploitation; at animals which were not cured on time, or at all, or policy holder has not kept the veterinary instructions; breeding inability, except if it is not agreed otherwise; blindness; reduction or loss of working ability; reduction or loss of milk performance; etc;

3. Costs of healing risk, if it is additionally contracted; and
4. Other specified risks under special conditions for animal insurance.

Animal is insured on value per head (for breeding categories) and per value of kg of live weight (output weight at fattening categories). Animals that are kept in group, and which have approximately equal value, could be insured on average premium amount. When animal becomes sick, or some other insured case happens, policyholder has to take all cure measures at his own expense. If occurs problem with many animals, he has to inform insurer too. Insured will undertake all actions in accordance with veterinary-sanitary regulations and instructions from the veterinarian. In case of disease, or accident, exist danger of perish, so on recommendation of insurer, or veterinarian compulsory slaughtering will done. Slaughtering from economic reasons is done only with written approval of insurer. Damage determination and estimation have to be done immediately, in situ, on corpse of dead animal, or on parts and products gotten from the slaughtering.

CONCLUSION

Assets invested in plant and live stock breeding production, are not fully efficient, if production is not economically protected by the activities of insurance and reinsurance. This means that contemporary production requires better-

organized care about damage problems in agricultural production. Because of that exists necessity of stronger support of producers to insure their activities against agricultural risks. Insurance policy in agriculture should be such that to offer premium discounts and excluding of its' paying in certain situations, that secures material means for taking of preventive measures for damage protection, that secures timely compensatory payments, that punishes insured agriculturalists for not implementation of needed preventive and repressive protection measures against crops and fruits destruction, and animal mortality, etc.

As insurance motive, it is really important that general developmental policy of agriculture should secure strengthening of its accumulative ability, as precondition for insurance premium payment from agricultural risks. It is necessary stronger activity of insurance companies in insurance expanding, as in commercial business with agricultural products, as well in completely agricultural production, especially on husbandries, what will secure business improvement and bigger benefits to insured persons. It should be heard in mind that bigger number of signed contracts allow decreasing of

insurance premium, growth of insurance funds and timely damage compensations.

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APPENDIX

Table 1 - Gross premium rates – premium tariffs of XIII Tariff group 1

| Tariff group 1 | | Insurance of crops and fruits from hail, fire and thunder | | | | | | | | | |
|-------------------|--|---|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Sensitivity class | Crop | Class of danger | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | | Premium rate in % | | | | | | | | | |
| 1. | - alfalfa, clover, grasses - carrot, parsley - parsnip | 0,43 | 0,65 | 0,86 | 1,19 | 1,52 | 1,95 | 2,28 | 2,71 | 3,14 | 3,69 |
| 2. | - sugar and fodder beet - mercantile potato - maize - beet root, radish, celery | 1.08 | 1,41 | 1,95 | 2,49 | 3,36 | 4,34 | 5,21 | 6,29 | 7,27 | 8,36 |
| 3. | - mercantile maize - seed potato - almond | 1,41 | 1,84 | 2,49 | 3,25 | 4,34 | 5,75 | 6,84 | 8,25 | 9,55 | 10,96 |
| 4. | - wheat, rye - hemp | 1,52 | 2,06 | 2,82 | 3,69 | 4,99 | 6,40 | 7,60 | 9,23 | 10,75 | 12,05 |
| 5. | - sunflower - barley, oats - buckwheat - seed maize | 1,84 | 2,38 | 3,25 | 4,34 | 5,86 | 7,49 | 9,01 | 10,75 | 12,59 | 14,33 |
| 6. | - soy - cabbage, kale, kohlrabi | 2,38 | 2,60 | 3,47 | 5,28 | 6,73 | 7,81 | 9,66 | 12,16 | 14,11 | 16,18 |
| 7. | - peas for seed - fig, raspberry - currant - decorative plants | 2,93 | 3,58 | 4,88 | 6,29 | 7,81 | 9,88 | 11,83 | 14,22 | 16,61 | 18,89 |
| 8. | - poppy as seed and opium - bean, green bean - onion | 3,90 | 4,34 | 5,86 | 6,84 | 8,79 | 10,75 | 12,92 | 15,85 | 18,46 | 21,07 |
| 9. | - apple and other fruit - paprika, tomato - cucumber, zucchini - flowers | 4,88 | 5,86 | 6,84 | 7,81 | 9,88 | 11,72 | 14,11 | 16,18 | 18,78 | 21,28 |
| 10. | - grape – wine, table - fruit nursery material | 7,16 | 9,01 | 10,75 | 14,33 | 16,07 | 17,92 | 20,85 | 23,35 | 27,15 | 30,95 |

Table 2 - Animal species and categories with premium rates of two risk categories

| Species and category of animals | | Gross premium rates (in %) | |
|---------------------------------|----------------|----------------------------|---------------------|
| | | I category of risk | II category of risk |
| Cattle | - milking cows | 3,25 | 5,46 |
| | - breeding | 4,05 | 7,00 |
| | - fattening | 4,50 | 7,55 |
| Pigs | - breeding | 7,67 | 11,10 |
| | - fattening | 6,50 | 10,50 |
| Sheep and goats | - breeding | 7,80 | 11,70 |

PERSPECTIVES FOR DEVELOPMENT OF AGRICULTURE IN THE CONTEXT OF THE COUNTRY'S INNOVATION DEVELOPMENT

Aurelia ȘUȘU-ȚURCAN

Academy of Sciences of Moldova ,1 Stefan cel Mare bd., Chisinau, MD-2001, Republic of Moldova , E-mail: aurasofia@mail.ru

Key words: *research and development, innovation, innovative activity, national economy, agro-industrial complex.*

Abstract

On different sectors of national economy the essence of innovative activity has fundamental differences. However, the nature and direction of the innovative of work these sectors can have significant differences. The process of innovation in agro-industrial complex is its specificity, given the particular component - Agriculture. Agriculture in the context of its specific peculiarities, and restricted opportunities as organizational, economic and technological, can not function effectively without assistance from the State, which must have the policy not only innovative but also directly carry out the coordination of the Innovation process. In conclusion, it noted that the main lines of business to accelerate innovation in agro-industrial complex, dependent not only on activation of enforcement of the Innovation process, but largely, and the system of government activities to support this process.

INTRODUCTION

In conformity with agroindustrial complex organizational economic essence of innovative processes is connected with the purposes and problems of their development which consist of the constant organizational, economic, technical and technological updating of agroindustrial manufacture directed to its perfection taking into account achievements of science, techniques and world experience. An ultimate goal of innovative development of the branch is formation of agrarian economy of innovative type.

MATERIAL AND METHODS

This paper has been set up based on the information collected from various official reports related to Agricultural Policy in the Republic of Moldova .

RESULTS AND DISCUSSIONS

The essence of innovative activity has no differences of principle with reference to various branches and spheres of national economy. However character and directions of innovative process can have essential distinctions in them.

In particular, innovative process of agroindustrial complex has his specificity, which is conditioned, first of all, by features of agroindustrial manufacture and, in particular, by its agriculture.

Such features are:

- Plurality of kinds of agricultural production and products of its processing, an essential difference in technologies of their cultivation and manufacture;
- Considerable dependence of manufacturing method in agriculture from developing natural and weather conditions;
- Substantial vary in manufacture period in separate kinds of agricultural production and products of its processing;
- High degree of territorial dissociation of agricultural production and essential differentiation of separate regions according to conditions of production;
- Different social level of workers of agriculture, demanding considerably more attention, paid to professional training and increase of their qualification, organization of post-graduate education .

These are the most typical features of development of innovative processes in agroindustrial complex:

- Plurality of forms and communications of agricultural commodity producers with innovative formations;

- Isolation of the majority of agricultural commodity producers at all levels: from the organizations making scientific and technical production, to the enterprises, carrying out its realization;
- Absence of accurate and scientifically well-founded organizational economic mechanism of transfer of achievements of science to agricultural commodity producers and, in consequence of it, essential underrun of branch of development of innovations in agroindustrial manufacture.

Innovative process in agroindustrial complex can proceed in different forms. In particular, it can intensively develop; with slowed down rates or very slowly, in other words, extensive.

In Moldova took place some attempts of acceleration of tempos of development of innovative process at certain stages of agricultural development. A typical example of such attempt is mass introduction of intensive technologies in agriculture in first half 1980th. Intensive technologies of cultivation of agricultural crops are eventual result of scientific researches in field of manufacturing method of agricultural production.

Despite considerable work spent on mass introduction of intensive technologies, outstanding results have not been reached in the country, though productivity of basic agricultural crops and efficiency of animal industries has little risen these years.

Now, after the lapse of many years after that stage, it became obvious, that it was unique and right direction of agriculture's development. Those years the innovative sphere of agrarian and industrial complex became considerably more active and it was possible to expect that such direction will lead to manufacture increase, and consequently, and to consumption of agricultural production.

Nevertheless the course of innovative process in agroindustrial complex can be characterized as extensive, smoldering, though there were observed the certain tendency to growth of efficiency of earth's use and manufacture's increase of agricultural production in pre-reform period.

Efficiency indicators (technological efficiency of agricultural production) — in other words productivity of agricultural crops and efficiency

of animals represent the evident productive indicator of course of innovative process.

Analysis of these data has shown that agriculture gross output in dynamics naturally grew in comparable prices as a cumulative indicator of technological efficiency, in pre-reform period. It became the result of intensification of manufacture according to the basis of scientific and technical progress. Scientific researches, numerous forecasts of scientific institutions and various departments have shown what even preservation of such rates of increase and further increase of innovative activity were quite possible by 2000 and furthermore it was possible to come nearer to indicators of safe developed countries at level of production and consumption per capita for more remote period.

During fifteen years, so-called "dead season" (1976-1990) rates of innovative activity in agrarian and industrial complex, despite some attempts to strengthen them, turn out to be low. In 1986 — 1990 in comparison with 1976-1980 the agriculture gross output in comparable prices has increased in 17 %, that is hardly more than 1 % a year. And nevertheless the basic indicators of productivity of agricultural crops and efficiency of animal industries have naturally increased. Undoubtedly, such rates of increase did not suit the Soviet state; consequently attempts were made for artificial forcing of innovative process by expansion of intensive and industrial technologies' introduction in manufacture. All this was accompanied by perfection of existing organizational forms and by creation of essentially new organizational forms of innovative process. There were scientific and production and industrial systems created on the basis of research establishments and advanced agricultural enterprises, scientific and production associations, integrally combining research process with manufacture of high technology production. Centres of scientific maintenance of agroindustrial complex began to be formed and to actively work in regions. All these rather new forms of scientific and production integration were prototype of formation subsequently of techno-parks formations (agrotechnoparks, agrotechnopolises).

Unfortunately, position in relation to agroindustrial complex has sharply changed in connection with transition to economic reforms in the country and to basic change of general policy of the state.

The agrarian reform which has drawn agricultural commodity producers in the hardest economic situation, has not only braked innovative process, but also has led to a catastrophic condition of all scientifically-innovative sphere of agroindustrial complex. Rates of recession of production's level, connected with downfall of efficiency in plant growing and animal industries within 1991-1996, so-called reforming, have considerably exceeded rates of its lifting which was observed in 1970-1980th of pre-reform period.

And this falling is characteristic for all regions and for overwhelming majority of agricultural commodity producers irrespective of proprietary and managing form.

Carried out reforms assert negative influence over scientifically-innovative sphere that has affected catastrophic falling of innovative activity at all levels of management of agroindustrial complex — from federal level to level of a separate agricultural enterprise. And it's regular, as it is connected with a complex of reasons, which has socially-psychological, economic and organizational character.

The complex of socially-psychological reasons of falling of innovative activity of agroindustrial complex includes so-called «a psychological shock» of all direct executors concerning innovative process, — from direct agricultural manufacturers to experts of administrative personnel of district, provincial and regional levels. Manufacture reforming, shock therapy in financial and economic sphere, unprepared and avalanche repartition of property, political instability, threat of uttermost disintegration of enterprises have generated economic insecurity and certain confusion in consciousness of workers at all levels, that, naturally, has created a serious obstacle for systematic innovative activity.

Not least important were macroeconomic reasons of decrease in innovative activity. Agricultural commodity producers which did not differ earlier with high innovative activity, in connection with disparity of prices at

realizable agricultural and purchased industrial output have appeared in such economic situation that practically had no possibility to conduct even a simple reproduction. This problem of survival and manufacture rescue has covered with itself the problem of scientific-technological progress in these conditions. Introduction of scientific achievement in manufacture was out of the question if delivery of basic material resources has decreased during the period from 1990 to 1996: mineral fertilizers — 8-fold, agricultural machinery — 7-fold, mineral oil — 3-fold.

The organizational problems which have arisen during reforms, at all levels of management have led to loss of elementary functional preciseness. Enough accurate and certain functions of all controls (from the concrete enterprise to the Ministry of Agriculture) have appeared at reforming vague and broken that has led to irresponsibility for practical realization of an innovative policy and course of innovative process.

At the same time experience of countries with developed intensive agricultural production testifies that all society bears responsibility for scientific and technical progress in this specific branch, consuming its production.

Agriculture owing to specific features and limited organizational-economic and technical possibilities cannot effectively function without aid of state which should not only have own innovative policy, but should also carry out direct regulation of innovative process.

Preparatory to formulate basic directions of increase of innovative activity which logically follow from above mentioned conditions and factors of development of given process, it is necessary to pay attention to developing tendency of carrying over of responsibility for innovative process in agroindustrial complex directly to agricultural commodity producers.

In this connection it is necessary to allocate the basic directions of increase of innovative activity in agroindustrial complex:

- State support of scientifically-innovative sphere;
- Approach of activity of scientific institutions directly to inquiries of manufacture;
- Activization of functioning of all organizational forms of innovative process in

rendering assistance in the field of introduction of achievements of science and technology in manufacture;

- Development of specialized information service of agroindustrial complex.
- Organization of mass retraining of personnel.
- Elaboration and introduction of system of economic incentives for activization of development of innovative process in agroindustrial complex;
- Realization of target state (branch) scientific and technical programs;

CONCLUSIONS

1. Economic reforms in the country have led to basic change of general policy of the state in relation with agriculture.
2. The Agrarian reform which has put agricultural commodity producers in the hardest economic situation, has not only broken innovative process, but also has led to catastrophic condition of all

scientifically-innovative sphere of agrarian and industrial complex.

3. Stabilization of position in agroindustrial complex of Republic of Moldova, exit of the branch from crisis state are impossible without essential increase of innovative activity at all stages of innovative process and management levels.
4. Basic directions of increase of innovative activity in agroindustrial complex consist not only in activization of activity of direct executors of innovative process, but also in system of certain state actions oriented to activization of the process.

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PROBLEMS OF FUNDING OF AGRICULTURAL SCIENCE IN MOLDOVA

Aurelia ȘUȘU-ȚURCAN

Academy of Sciences of Moldova ,1 Stefan cel Mare bd., Chisinau, MD-2001, Republic of Moldova ,E-mail: aurasofia@mail.ru

Key words: *agricultural science, science and technology, research and development, financing system of science.*

Abstract

Governments subsidizes agricultural science for the potential benefits that science and technology provide in development (economic, social). Positioning countries depending on the level of funding for research and development shows that the minimum level of economic growth should be considered as 1% of GDP. The leader in this rating is Israel, where the level of funding for research and development is over 4%. In Moldova, for the period 1990 - 2001 year, this figure declined from 1, 57% to 0, 18%, with subsequent small increases in following years. As a conclusion, the primary task in improving the financing system of science in terms of reforming the scientific and technical sphere is to ensure its restructuring and development in conditions of limited financial resources.

INTRODUCTION

Since the beginning of market reform in the economy, there was a drop in government funding of science, also there was a drop in interest for science from industry sectors. Science is not entirely financed .To assess the situation , it is important to know the share of funds allotted to science in GDP. This indicator reflects objectively the emerging balance of national economy. These indicators are slowly changing even though there is no war or major natural disasters. Every 10-12 % matters , because of the GDP size. Moldova historically is engaged in agriculture. That is why the issue of financing of agricultural science is very important

MATERIAL AND METHOD

In order to characterize the evolution of agricultural science funding were used the following indicators: expenditure internal R&D; expenditure ratio to GDP, structure of expenditure, etc.

The period examined in this study is 1990-2008. Database information was collected from National Bureau of Statistics and the Academy of Sciences of Moldova. The data collected were statistically processed and interpreted.

RESULTS AND DISCUSSIONS

The countries position function of research proves that it's necessary to consider 1% of GDP (gross domestic product) as a minimum level for economic growth. Share rating of the countries in GDP directed on research and development in 2006 was the following one : the first place was occupied by Israel (4.2 %), (2) Sweden (3.8 %), (3) Finland (3.5 %), (4) Japan (3.4 %), (5) Iceland (3.1 %), (5) USA (2.8 %), (6) Germany (2.6 %), (10) France (2.1 %), (18) England (1.9 %), (21) China (1.5 %), (25) Russia (1.3 %), India (1.0 %) [3].

The leader in given rating was Israel where research funding has exceeded 4 %. Developed countries spend on science approximately from 2 to 4 %. Countries with the largest economy like China, India and Russia also aspire to science financing nearby 1.5% of GDP.

According to new advanced techniques the World Bank has published the data which shows that China is the second largest economy in the world and provides almost 10 % of world gross national product, and India is on the fifth place in accordance with rate of economy and provides over 4 % of world gross national product. Russia has produced 3.09 % of world gross national product [2].

Thus it's worthy of note that the policy concerning expenses for scientific activity in Israel has considerably changed. In five years

Israel moved from the sixth place (spending 2.1 % of gross national product on research and development) to the first place in 2006 (spending already more than 4 % of gross national product on research and development). Countries of Eastern Europe don't spend on scientific researches and elaborations more than 1.5 %. The greatest attention is given to science in Czechia where 1.5 % of gross national product is spent on research and development. In Slovenia it's 1,1%, in Hungary it's 0.9 %, in Slovakia, Poland, Romania it's about 0.5 %. The worst position is in the countries of the former USSR (Russia is an exception) which don't enter at all into the international classification, as statistics of science isn't brought up here to standard.

A long period of the economic crisis of 1990-2000 years has taken place in the countries of the former USSR, after demise of the Soviet Union. The situation of science financing was on the verge of survival, therefore this period could be characterized as a period of full collapse of sciences and of its scientific potential which was bound either to reorient in other fields of activity, or to leave the country. Within 1990-2008 there was an essential decrease in relative density of expenditures connected with scientific researches and elaborations in gross national product in countries of the former USSR. In early nineties expenditures connected with science were more than 1 % (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan were an exception), by 1995 only Ukraine spent more than 1 %, all other countries of the former USSR spent less than 1 %.

Thus only within the decade from 1990 till 2000 repeated decrease of expenses of scientific researches and elaborations was marked in gross national product in all countries of the former USSR.

Also it's obvious that in countries-leaders (Russia, Belarus and Ukraine) expenses nevertheless exceeded 1% of gross national product despite sharp decrease in expenditures connected with science in 1990-2005.

At that time in other countries of the former USSR (excluding the Baltic States) this

indicator varied from 0.07 % in Tajikistan to 0.81 % in Belarus.

It's necessary to notice that Russia, Belarus and Ukraine in 2005 were in the lead in expenditures connected with science, other countries of the former USSR spend no more than 0.4 % of gross national product for it.

The governments subsidize scientific researches for the sake of potential advantages which science and techniques give to development. However scientific researches in agriculture don't occupy the first lines in financing of these elaborations in the world.

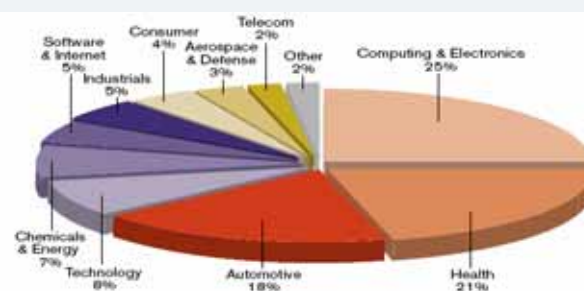


Fig. 1. Distribution of financing of world scientific researches and elaborations depending on social and economic purposes [3].

The state policy in science's field and innovations in Moldova provides concentration of resources at strategic directions of activity in this area, and also provides organization of such activity.

Strategic directions of activity in field of science and innovations are defined taking into account available tendencies at international level, national potential and requirements of social and economic development of the country. According to the Republic of Moldova's Code about science and innovations these are strategical directions of activity in field of science and innovations [1].

1. Creation of a lawful state and assimilation of Moldavian cultural and historical values in the context of the European integration (16.07);

2. Use of human, natural and information resources for sustainable development of national economy (16.08);

3. Biomedicine, pharmaceuticals, maintenance and strengthening of health (16.09);

4. Agricultural biotechnologies, fertility of soils and food safety (16.04);

5.Nanotechnologies, industrial engineering, new products and materials (16.05);
 6.Improvement of effectiveness of power complex and securing of energy preparedness, including usage of renewable resources (16.06).

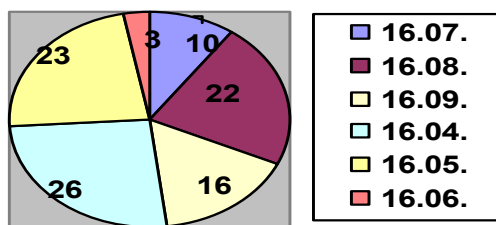


Fig. 2. Structure of financing of science depending on national priorities [1].

In 2008 (**fig. 2.**) the agrarian science is in the lead - 26 % from the general government financing in distribution financing of science in our country depending on national priorities.

The analysis of the statistical data of expenses of scientific researches in Moldova shows sharp decrease in given indicator during 1990 - 2001 from 1.57 % to 0.18 % (**fig. 3.**), with its subsequent insignificant growth the next years. It is calculated by the author according to Academy of Sciences of Moldova (ASM) and National Bureau of Statistics (NBS).

However it is important to note, there is some discrepancy in data's comparison. Indeed till 2004 expenses of scientific researches and elaborations were taken into consideration, in 2004 expenses began to concern all activity of science and innovations which is much wider after introduction of the Code of science and innovations.

Examining the growth dynamics of science and innovation expenses from state budgetary expenditures, it's important to note, this level has increased almost twelfth - fold within last decade from 26.6 lei in 1999 to 340,4 million lei(current prices) in 2008.

This is a very essential increase, but given expenses have come back to the level of the beginning of 2000 according to shares of expenses of science and innovations in gross national product.

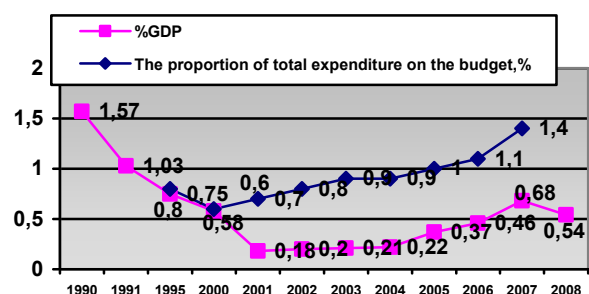


Fig. 3. Expenses of scientific researches and elaborations in Moldova for 1990-2008.

However growth of expenses in current prices for a science and innovation from consolidated budget does not reflect real growth, because it includes inflation, not only the general inflation, but price increase for energy carriers, transport and communication, but also for equipment and other permanent assets.

In 2008 the most significant percentage was made by expenses for the personnel (73 %) in structure of current expenses. Growth of wages of science officers has made fivefold increase from 548 leies in 2004 to 2,965.9 lei in 2008. Thus the payroll has threefold increased from 36.6 million lei in 2004 to 139.7 in 2008. First of all it explains that despite the fact that the average wages have fivefold increased nevertheless level of wages remains low in scientific research institutes. The young expert's wage is also low. Researchers who receive substantial surcharges for academic and scientific ranks and for long service have high payment. The wages of part-time workers have very low level and consequently return is also minimal and it is often unproductive.

The further increase of salary is feasible at the expense of practical introduction of elaborations made by scientists. It should arise not from the budget, but from commercial structures.

Payment of goods and services has increased from 26.1 million lei in 2004 to 121.4 million lei in 2008. However this indicator characterizes concealed inflationary processes in our country, as charge has manifold increased in heat supply, gas-supply and water-supply, it has also caused almost fivefold general increase in this period.

Capital expenses have increased even more essentially. According to the data of National Bureau of Statistics in 2008 , 73 % of capital expenses made use of the equipment, and 21 % made use of buildings and constructions.

The structure which shows expenses of science in accordance with science areas in Republic of Moldova is presented in **fig. 4**.

Here is a very interesting situation related to scientific research in our country, in spite of the fact that the considerable quantity of means is directed to natural, technical and agricultural branches, however the smallest quantity of post-graduate students and defended dissertation are marked in these branches. In 2008 post-graduate students were distributed in that way : economic sciences - 20 % , jurisprudence -13%, medicine – 12 % , pedagogical sciences – 10 % , engineering sciences -6 % , physico-mathematical and biological- by 5 % , agricultural - 2 % etc.

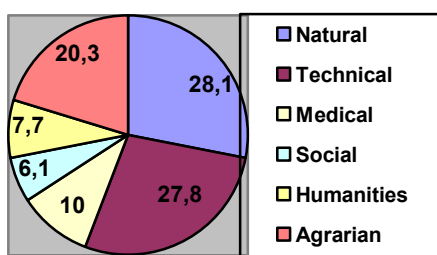


Fig. 4. Structure of expenses of science in accordance with science areas in 2008.

Considering structure of expenses of research and development in Moldova it is important to note that from 206 million leies oriented to institutional programs 82 % have been allocated, and special means have made only 18 %. Thus it is necessary to note there is a total absence of means of private debt capital. However statistical data depending on countries-leaders in economic development testifies that more than 50% of financing of scientific researches and elaborations are financed by private industrial business, the share of state expenses doesn't exceed 33 %. Thus in the USA scientific researches of money from abroad are not available, in Japan it's 0.3 % , in China it's 2.7 %.

In conditions of reforming of scientific - technical sphere perfection's priority of finances system of science consists in

maintenance of its restructurisation and development in the conditions of the limited monetary resources.

Considerable improvement of financial situation in science can be achieved by redistribution and concentration of budgetary funds among priority directions, selective support of leading, branch, scientific organizations, and also by attraction of means of extrabudgetary funds and private capital.

All the systems of state financing of research elaborations and expenditure by organizations of the allocated assignments should be "transparent" to exclude abusing and to provide efficiency of use of budgetary funds.

CONCLUSIONS

1. During 1990-2008 there was an essential decrease in density of expenses of scientific researches and elaborations in gross national product in countries of the former USSR.

2. During 1990-2008 in Republic of Moldova the level of expenses of scientific researches have essentially decreased.

3. In distribution of financing of science depending on national priorities the agrarian science is in the lead - 26 % from the general state financing in our country.

4. The considerable quantity of means is directed to natural, technical and agricultural branches, however in these branches it is marked the smallest quantity of post-graduate students and defended dissertations.

5. Combined financing of most important research, design and experimental works by state and not state economy sectors, will permit to bring into accordance public and private interests, to unite the state priorities with entrepreneurial initiative.

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EVALUATION AND ACCOUNTING OF LAYING HENS

Tatiana ȚAPU

The State Agrarian University of Moldova, 44 Mircesti Street, MD-2049, Chisinau, the Republic of Moldova, Phone: +37322432815, E-mail: tatiana.tapu@gmail.com

Key words: *Biologically Active, Value, Cost, Reduction*

Abstract

The determination of rationality and how to calculate the value of production of laying hens and its reduction due to physiological factors for the development of biological assets operated in production. A monographic study was effectuated to, the poultry business activity in Republic of Moldova concerning the records of laying hens and the formation of their value, and the influence of taxable income. In the result, we've developed a mechanism for calculating the reduction of hens' value and its reporting to the cost of the obtained eggs. It outlined how to calculate the values' share of laying hens that are included in the cost of obtained eggs according to the stages of production and possible taxable consequences.

INTRODUCTION

In agreement with § 12 of Accounting (6) National Standard (A.N.S.) [5], the laying hens that are exploited to obtain eggs for production and/or consumption, are included in the composition of biological assets as well as other animal for breeding and fattening, nevertheless assure periodic obtainment of agricultural produces. On the basis of § 45 of Accounting (41) International Standard [3], the adult hens may be considered biological assets producers because assure periodical gatherings that is characteristic to mature biological assets. As well as other mature biological actives at exploited laying hens with the aim of production, doesn't determine the output of alive mass and increase of maintenance value (§ 20 A.N.S. 6) that arises a lot of disputes between specialists in the domain. Some scientists suggest as a quota of these consumptions to be included into the value of hens, but others ignore this idea. The study made in this domain denotes that till present days wasn't still elaborated a mechanism of adjustment of laying hens value and bringing significance to venal value corresponding to physical condition to which these, therefore, would be commercialized. The exploitation period of laying hens can be also named period of rational use of effective base bevy as means of labor. In this context, it

is created an illusory impression that such usury doesn't exist, it being amplified by the fact that birds are rebutted from the base bevy in optimum terms or, if is necessary, even more anticipated [1].

MATERIAL AND METHOD

Methodological support of investigations in the domain served the dialectical method of knowing the phenomena and processes. Main proceedings used in the research are: scientific abstraction, induction and deduction, analysis and synthesis. In the process of researches it was appealed to the provision of legislative and normative documents, as well as different theoretical concepts of national and abroad scientists. The empiric base to make the researches served the mode of organization of primary accounts and account book data at the chapter of book-keeping of laying hens registered within the frame of poultry entity with production industrial base in republic of Moldova.

RESULTS AND DISCUSSIONS

Practice of local poultry industrial units demonstrated that the rebutted hens from base bevy are prevalently commercialized at a lower price than their cost that cause a lot of difficulties concerning the mode of

determining their value, registration of differences between the net and cost feasible value, possible fiscal consequences.

Birds, no matter the term of their use, are considered current biological assets and their evaluation is made under the incidence of §7 of ANS (2), and the sum of reduction appeared in case when the net feasible value is lower than their effective cost are passed to other operational expenses. The feasible net value of stocks is determined according to §28 of A.N.S. (41) [3] and §27 of A.N.S. 2 [4] in case of partial or integral deterioration, partial and integral usury, sale price reduction, increase of possible expenses to complete and organize their sale.

Birds rebuffed from base bevy correspond to all specified cases of international standard because in the process of exploitation they grow older, decrease their productivity, and the production obtained by the act of scarification is less profitable. The maintenance further of these birds, with the aim of obtaining eggs, leads directly to the increase of fodder consumption, as well as other consumptions that refer to continuing the technological processes because the physiological capacities of laying the eggs are irrevocable and the body mass is maintained at the same level, but in some cases it decreases. Being analyzed in the aspect of current biological assets (§ 30 of A.N.S. 6), the laying hens are evaluated and reflected in accounting and financial reports at the lowest value from the value of procuration (effective cost) and feasible net value [5].

The losses resulted from value adjustment aren't deduced with fiscal purposes, and its non adjustment is resulted in very rigorous fiscal consequences, and leads namely to calculation of fiscal fine conformable to provision of Fiscal Code (F.C.) of 15 % from the sum of diminution of taxable income of 15 % (article 260 (5)). According to article 97 of F.C. the taxable value of taxable delivery represents the value of acquitted delivery or follows to be acquitted (without V.A.T.) the market value [2]. According to the article 99 (6) the market value of taxable delivery must not be lower than their sale cost. Beginning with the provision of F.C. from the difference

between the value on the market the sale cost, in the case when the first is lower, it is calculated the Value Added Tax (VAT) at established size. Therefore, in 2010 the sale of rebuffed hens is imposed on quote 8%. Not calculating the VAT by shirking from calculation, and in consequence, from the pay of rates and taxes, is sanctioned with penalty at the size of undeclared tax, but diminishing the taxes by presenting fiscal reports with non-veridical information is sanctioned with 30% of sum of the diminution.

In our opinion, when determining the venal values of adult birds rebuffed from the basis bevy it follows to pay attention to the prevision § 35 of A.N.S. 6 according to which is determined that an eventual agricultural goods to the evaluation of whom must be paid attention to all the indicators that characterize the physical condition of these biological assets. Beginning with those mentioned, the venal value of laying hens in exploitation essentially differs in comparison with the venal value of the rebuffed hens from production. So, venal values of biological assets in exploitation need periodical adjustment and coming to a venal value that is corresponding to the physical condition to which, furthermore, will be commercialized [5]. Adjusting the initial value of lazing hens can be made by its depreciation and to include it into the cost of obtained products. The study of biological features of adult birds development demonstrate the fact that the young birds being transferred into the base bevy, it means included into the constituency of producing mature biological assets, pass in their evolution, as well as other animals species three stages:

- **first stage** – production quality amelioration of chicks that is made in a natural mode accompanied by the increase of both the productivity (that starts on the 20th-21st week in conformity with the cross-county race and the maximum is emphasized on the 24th-25th week) and alive bird mass. In the period preceding the maximum one of production the ratio obviously increases in constituency with the purpose to assure the body mass growth as well as the size of the egg that evidently leads to the increase of fodder consumption, and in

consequence at increasing the cost of production. According to the level of productivity, the first stage begins on the 17th week and lasts approximately 4-6 weeks. At the end of this stage the level of productivity is established between the limits of 70-80 %. Therefore, the value of chicks as an estimation at the end of this period, it means 24-25 weeks, may be considered as remained value of laying hens because until this period, the consumptions of registered production is referred preponderantly to skeleton definitivation and their preparation for laying period. The quota share of the remained value can be determined by reporting the growth and preparation (24-25 weeks) period life total duration (80 weeks) and will be equal with approximately 30%. The quota share of laying hens value that follows to be integrally included in the cost of eggs constitutes 70% [100% - 30%];

• **second stage** refers to definitive stabilization of production quality of laying hens what permits to obtain a maximum quantity of eggs. The period when it is registered the high productivity is the most critical, because this period simultaneously increases the body mass of birds, the unitary weight of eggs, the production of eggs. Growth and body mass is established approximately on the 40th week that happens at the middle of the second stage of physiological development evolution. After the 40th week the increase of the body mass is not so obvious. The rhythm of the body mass growth on the second stage constitutes about 17%. At the same time, it is being registered the production level growth with 10-20 p.p. than the reached level at the previous stage, whose maximum reaches 95% (for instance, at the hens Hy-Line Brown cross). This stage lasts about 28 weeks and finishes approximately on the 50-54th week to the end of which is established the body mass growth of laying hens on account of skeleton definitivation and muscle system. After the 40th week of life, it is registered a superficial increase of production level with about 2-5 p.p., that varies between the limits of 85-90%, what is from our point of view, certifies some signs about the beginning of growing older the organism of adult hens. This phenomenon can

be named physical usury, which is associated in the economic plan as capacity of laying hens, increase of additional consumption afferent to prophylaxis, treatments, etc. that imposes the adjustment of fodder consumption, by decreasing their consistency and quantity by connecting to productivity level. Significance growth of physical usury goes to decrease the exploitation efficiency of base bevy, because it is registered a decrease of both the number of eggs and their unitary mass. At this stage we attest, for certain, the real premises value gradually depreciation of laying hens proportionally to the rhythm of an increase of physical usury and including it into the cost of obtained production, namely eggs.

By calculating the depreciation of laying hens caused by the previous enumerated factors, from our point of view, it is necessary to determine and also to pay attention to the rhythm of productivity decrease registered at critical extreme points at the end of the second stage and end of useful duration of exploitation, namely at the end of the third stage;

• **third stage** – At this stage it is emphasized the impetuous continuing decrease of productivity level of laying hens of base bevy, equivalent to their ascension growing older and physical usury. In conformity with the exploited hens cross, nutrition and maintenance conditions of effective birds, this stage can last 26-30 weeks or with approximation 6-7 months. The obtained produces in this period to its end become less and less profitable that is prevalently due to decreased productivity as well as the reduced unitary weight of eggs that creates fair premises to end the laying hens' value depreciation calculation.

The productivity decreasing rhythm varies in conformity to the exploited cross between the limits of 15-21 p.p. In average the significance of this indicator is established at the level of 18 p.p. Such a reference of productivity value permits to determine the output of laying hens' value afferent to given stage. In consequence at the cost of obtained produces obtained on the second stage of evolutions follows to be reported a quota-share of hens' value with 18% bigger than that of the third stage. While

at the third stage the quota-share that follows to be reported, must be adjusted with the productivity corresponding to this stage, and is diminished with 18%. To depreciate the value of adult hens and including it gradually into the cost of eggs, it is suggested to make valuable their productive capacity with the aim to determine the remained value of adult hens, value depreciation of laying hens and its report ratios in conformity with the stages of its evolution.

To determine probably the remained value initially it is necessary to calculate the value depreciation of adult hens corresponding to the second and third stages. To this end we draw up an equation of first degree with one unknown "x", whose significance constitutes the relative expression of value depreciation of laying hens afferent to the third stage where the productivity increases with 18 p.p. than on the second stage. As for the second stage, then the relative expression of laying hens' value depreciation will constitute (x+18). In this way the equation of 1st degree has the following form:

$$x + (x + 18) = 70\%, (1).$$

The significance of unknown "x" (without keeping account of the rhythm body mass growth) is calculated in the following mode:

$$2x + 18 = 70\% (2),$$

$$2x = 70 - 18 = 52\% (3),$$

$$x = 52 \div 2 = 26\% (4).$$

The depreciation of laying hens' value corresponds to the second stage (**x+18**) will constitute **44%** [26 + 18]. Because to the end of vital evolution the body mass increases, as it was mentioned with about 17% at the row with productivity decrease and growing older organism we consider to be logical and a useful adjustment of quota-share of depreciation corresponding to the third period, beginning with the rhythm of growth of birds' body mass and increase of quota-share of the remained value corresponding to the first 25 weeks of life. In the same connection, the quota-share of value depreciation of laying hens afferent to the third period will constitute **9%** [26 - 17]. The quota-share of the value remained in the initial value to which will be evaluated the rebuffed hens detonated for scarification will constitute **47%** [30 + 17].

The total value will include the following three component parts:

- I. the remained value to which will be rebuffed from production the old hens – 47%;
- II. value depreciation of laying hens corresponding to the second stage – 44%;
- III. value depreciation of laying hens corresponding to the third stage – 9%.

Starting with the evolution features of chicks transferred in the laying hens' bevy it is suggested the following mechanism of calculating the depreciation:

1) Beginning of calculation – maxima registration of productivity level of chicks that in average occurs on 24th-25th week, what is, in our opinion, corresponding to the moment of beginning the exploitation of chicks as laying hens at which is determined the remained value of adult hens.

2) Duration of calculation – the period of rational use of base bevy effective as means of labor that is for fixed means is identical with the normative term of useful work. For laying hens this duration constitutes \approx 13 months (54 weeks) and is divided into two stages:

- the first that corresponds to the second stage of adult hens' evolution that lasts about 28 weeks and finishes with approximation on 50th-54th week;
- the second that corresponds to the third stage of evolution of adult hens that in conformity with the cross, lasts 26-30 weeks.

3) Base of calculation – the productive cost of laying hens. According to the terminology of A.N.S. 16 [5], that is identical to the difference between two values – initial and remained.

4) Method of calculation – proportionally to the average level of production registered on the second and third stage of birds' evolution. This method is more authentic because it takes into account the productivity of hens in the course of useful exploitation duration.

Example: At a poultry enterprise specialized in eggs production in January of the reference year it was supplied the base bevy of laying hens with 20 thousand remounted chicks with age of 17 weeks. The unitary cross of one bird at the date of transfer constituted 45 leis.

Exploited life duration of hens' cross is 80 weeks at the end of which these hens will be commercialized. The venal value of rebuffed

laying hens in previous period (the average price of sale formed at the end of reference year) constituted 30 leis per unit that in conformity with the accounting policy of this entity is applied to determine the net feasible value. On expiration of the term of exploitation, the hens were rebuffed and commercialized 20 thousand units at a sale price of 35 leis / piece.

Using the suggested method it is necessary to determine the remained value of chicks, redemption value of laying hens according to the stages of their vital evolution (tab.1).

Table 1. Economic operations and accounting formulae afferent to laying hens' existence and movement (Moldovan leis)

| Brief content of economic operation | According to the method | | | | | |
|---|-------------------------|--------|--------|----------|--------|--------|
| | actually applied | | | proposed | | |
| | debit | credit | sum | debit | credit | sum |
| A | 1 | 2 | 3 | 4 | 5 | 6 |
| 1. It is reflected the transfer in base bevy of remounted chicks at entering value [20000 units x 45 leis] | 212.1 | 212.2 | 900000 | 212.1 | 212.2 | 900000 |
| 2. It is reported at the cost of eggs the redemption value of hens corresponding to the second stage where is registered the highest productivity [900000 x 44%] | - | - | - | 811 | 212.1 | 396000 |
| 3. It is determined and reported to cost of eggs the redemption value corresponding to the third stage where is registered the reduction of production [900000 x 9%] | - | - | - | 811 | 212.1 | 81000 |
| 4. There are rebuffed from the base bevy the commercialized adult hens (according to the applied method) | 711 | 212.1 | 900000 | - | - | - |
| 5. There are rebuffed from the base bevy the commercialized adult hens evaluated at remained value [900000 x 47% or 900000 - (396000 + 81000)] | - | - | - | 711 | 212.1 | 423000 |
| 6. Is calculated the income from rebuffed hens' sale (without V.A.T.) [20000 x 35 leis] | 221 | 611 | 700000 | 221 | 611 | 700000 |
| 7. It is calculated the value-added tax at quota 8% from the rentable value - 56000 leis [700000 x 8%] | 221 | 534.2 | 56000 | 221 | 534.2 | 56000 |
| 8. It is calculated the V.A.T. from negative difference sum of the income and sales cost [900000-700000 x 8%] | 713 | 534.2 | 16000 | - | - | - |
| 9. Closing of books of results by reporting their roulage at the total financial result: | | | | | | |
| • income from sales | 611 | 351 | 700000 | 611 | 351 | 700000 |
| • sales cost | 351 | 711 | 900000 | 351 | 711 | 423000 |
| • general and administrative expenses | 351 | 713 | 16000 | - | - | - |
| NOTE: In this table were used the following accounting accounts: 212 "Breeding and Fattening Animals" (analytic account 1. "Laying hens" and 2 "Remounting chicks"), 221 "Debts on short term afferent to commercial invoice", 351 "Total financial result", "Debts referring settlement of accounts with the budget" (account of second degree "Debts referring the value-added tax"), 611 "Incomes from sales", 711 "Cost of sales", 713 "General and administrative expenses". | | | | | | |

As it is observed in table 1, the enterprise registers different financial results. So, according to the applied method at present is registered losses of 216 thousand leis, while in the case of the second method it is registered a profit of 277 thousand leis. Treating incorrectly the accounting national standard provisions, as well as international accounting norms (I.N.S.), leads to appearance of fiscal amendments of great dimensions.

CONCLUSIONS

1. Nevertheless the laying eggs as well as other adult exploited birds with the purpose of production and reproduction are included in the composition of current biological assets and they continue to remain productive biological assets.
2. Laying hens, as well as other exploited adult birds with the aim of production and reproduction, in their evolution pass three stages inter-correlated and their value follows to be adjusted in conformity with other interdependent factors: the level of productivity and body mass rhythm of growth.
3. According the proposed method the value of laying hens, as well as other exploited adult birds with the aim of production and reproduction, is decomposed into three components: (remained value, amortization corresponding to the second stage and that of the third stage) that permits to delimitate this and to include it into the cost of produces obtained in that period.
4. Adjusting the value of laying hens as well as other exploited adult birds with the aim of production and reproduction, making it corresponding to the physical condition of birds at the moment to be rebuffed and commercialized.
5. Application of proposed method permits to respect the provisions of A.N.S 2 and 6, as well as I.N.S. 2 and 41 at the chapter of correct determination of current biological assets that to a certain extent assimilate mature biological assets features and not admitting the sanctioning of producing enterprises at the chapter of erroneous calculation of ratable income by the tax payers that apply the quota "0" at income tax.

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ANALYSIS REGARDING TO COMPLEX INFLUENCE EVALUATION OF THE PRODUCTION FACTORS

Alexandru TCACI¹

¹State University of Moldova, Chisinau, Mateevici street 60, e-mail: tcaci_alexandru@mail.md

Key words: economic analysis, model, production factors

Abstract

As a rule, factorial models application provides the determination of a single factor at modification of the resulting factor and in this way triple growth of production comparatively to real one is obtained. An analysis complex model is proposed for resolving to avoid such a postponement, which blends common influence of the utilization of agricultural grounds, fixed means and labour force. In this case the substitution of production factors (namely the replacement of labor force with fixed means) could be taken into consideration. Under proposed factorial model a simultaneous influence of the three production factors on modification of resulting factors is quantified.

INTRODUCTION

In the analysis models of activity results of an enterprise, one of the basic aspects is concerning on the fact, that obtained production is interpreted in isolated manner by means of a single factor of production process. As sequel in the fundamental models appropriate to these three factors of production process is been made abstraction with other two factors. Forasmuch these three factors are independent, it comes out, that production could be obtained unless through simultaneous action of it [1]. As sequel, from methodological point of view a necessity of construction of some models in which will be included production process factors, resulting from branch peculiarity, categories of resources, and principle of interdependence appears. This will allow the influence separation of these three factors over the production increase.

A French economist Jean-Baptiste Say, the creator of the theory of three production factors (labour, land and capital), emphasised that every apart production factor gets a respective value of the brought services, in this way forming afferent incomes of each factor [2]. Taking into consideration the importance of the famous scientist, from a methodological point of view we consider to be appropriate construction of some complex models of analysis which comprises factors of production process according to the branch specificity,

categories of resources and the interdependence principle. This will allow to separate the influence of the three factors on production increment.

MATERIAL AND METHOD

Researching informational base consists of specialized forms and financial ratios upon activity of 281 agricultural enterprises from Center region of Republic of Moldova. As a methodological aid for investigations theoretical concepts of inland and international scientists, national accountant standards and other proper legislative and normative documents have served. In researching process the following methods have been used: monographic method, in accordance with it was studied scientific papers of inland and international scientists; comparison method and method of chain substitutions.

RESULTS AND DISCUSSIONS

Production factors determine formation and modification of results and act into liaison correlation, that's why its efficient administration represents one of the essential directions of economical increasement [2]. In this context a necessity of production factor analysis in concordance with economical efficiency results of agricultural enterprises activity appears. According to this mode of approach in the specialty literature several

resulting indicators that reflect the efficiency of production factors use are applied. But the main indicator that shows the results of the activity carried on by agricultural enterprises is considered to be the value of global agricultural production.

The results of the performed research allow to infer, that for a more objective estimation of production factors utilization efficiency both partial indicators of efficiency and complex analysis models is reasonable to apply. Taking into consideration the fact that in agriculture production factors are land, labour force and production means we consider that estimation of economic efficiency of all these should be done separately on each group of factors as well as to stabilize a quota of each factor in global agricultural production obtained.

This methodological aspect is explained by the fact, that in traditional models the overall agricultural production (VPG) as enterprise activity result was determined in the isolated manner through viewpoint of a single production factor. That is to say, factorial models, which correspond to the three production factor are expressed by the following:

$$VPG = \overline{L_a} \times \overline{W_a} \quad (1)$$

$$VPG = \overline{MF} \times r_{mf} \quad (2)$$

$$VPG = S_{ta} \times R_{ta} \quad (3)$$

where: $\overline{L_a}$ – mean number of workers engaged in agriculture; $\overline{W_a}$ – average productivity of a worker engaged in agriculture; \overline{MF} - mean value of fixed productive means with agricultural destination; r_{mf} – efficiency of productive fixed means with agricultural destination;

S_{ta} – agricultural grounds surface; R_{ta} – agricultural grounds efficiency.

The expression of production factors efficiency in models 1, 2, 3 is performed basing on the efficiency indicators ($\overline{W_a}, r_{mf}$ and R_{ta}), that reflects the size of effect per one unit of consumed and used resources.

By the application of presented models an abstraction (1, 2, 3) from these two factors is made and in such manner a triple increment of production as compared with real one could be obtained. Because all production factors are

independent, it comes out that production could be obtained only through the complex action of all factors.

In argumentation to what have been said, we mention, that pursuant to relation effect/effort indicators of efficiency of production factors - $\overline{W_a}, r_{mf}, R_{ta}$ is calculating with ratio between overall agricultural production value (VPG) and size of proper factors ($\overline{L_a}, \overline{MF}, S_{ta}$). Thus, under calculation manner also is confirmed fragmentary character of efficiency, which is due to the fact, that entire result of economical activity is attributed only to a single factor without taking into consideration the contribution of other factors.

For exceeding such disadvantage we propose to construct a factorial model, which interweave influence of all production factors, ensuring a complex assessment of modification of global agricultural production as well as of incomes from sales.

Starting with the fact, that mean productivity of a worker engaged in agriculture is a indicator of efficiency, this regarding to own content could emphasize following aspects:

- to be able to create economical goods labour force has to dispose for a certain technical endowment;

- endowment of labour force with performant technical equipment contributes as a rule to the efficiency increase including both human factor and fix and circulating production means.

Taking into consideration these aspects we will effect some transformations in the factorial model 1. It is known, that mean productivity of a worker engaged in agriculture is determined by formula:

$$\overline{W_a} = \frac{VPG}{L_a} \quad (4)$$

By imparting numerator and denominator of formula 4 on average productive fixed means with agricultural destination value we will obtain: $\overline{W_a} = \frac{VPG - MF}{L_a + MF} = \frac{MF}{L_a} \times \frac{VPG}{MF}$ (5)

Proportion $\frac{MF}{L_a}$ represents labour endowment with fixed productive means, and $\frac{VPG}{MF}$ - productive fixed means with agricultural destination efficiency, with other words, factors synthetized in production means

through degree of fixed means endowment and productive fixed means efficiency.

Thus, by substituting in model 1 mean productivity of a worker engaged in agriculture with factors obtained after transformation, in other words, $\frac{MF}{La}$ și $\frac{VPG}{MF}$ we achieve more consistent model:

$$VPG = La \times D_{mf} \times r_{mf} \quad (6)$$

In model 6 the three production factors are interweaving, in other words, labor force, labor means and labor objects. This could be explained by the fact that increase of technical equipment degree will contribute to increase of efficiency of both fix productive means and agricultural land and materials. In this way, quality factor – r_{mf} – will reflect simultaneous action of production means.

Using the obtained model we will perform calculation of the influence of production factors on modification of global agricultural production by means of chain substitution method (table 1).

Table 1. Calculation of the influence of production factors on modification of global agricultural production

| Number of calculation | Number of substitution | Correlated factors | | | Global agricultural production value (VPG), thousand lei | Calculation of influence of the factors | Result of influence (+; -) | Causes of deviation |
|-----------------------|------------------------|--------------------|-----------------|------------------|--|---|----------------------------|------------------------------------|
| | | La | $\frac{MF}{La}$ | $\frac{VPG}{MF}$ | | | | |
| 1 | 0 | 24158 | 41465.6 | 0.682 | 683177 | ----- | ----- | ----- |
| 2 | 1 | 19800 | 41465.6 | 0.682 | 559935 | 559935-683177 | -123242 | Reduction of number of workers |
| 3 | 2 | 19800 | 42317.7 | 0.682 | 571441 | 571441-559935 | +11506 | Growth of fixed means endowment |
| 4 | 3 | 19800 | 42317.7 | 0.771 | 645764 | 645764-571441 | +74323 | Increase of fixed means efficiency |
| Total | | X | X | X | X | X | -37413 | X |

Verification: $645764 - 683177 = -37413$ thousands lei

Basing on the calculations made in table 1 a decrease of global agricultural production in 2006 with 37413 thousands lei in comparison with 2005 was revealed. This decrease was caused by the negative influence of labour force that is a reduction of workers number which led to a decrease of the resultative indicator with 123242 thousands lei.

Concomitantly the increase of degree of technical equipment and fix means efficiency has contributed to the growth of global agricultural production with 11506 și 74323 thousands lei respectively.

The results of the analysis allow us to state that the reduction of workers engaged in agriculture with 18.0% had a negative impact that resulted in a diminishment of global agricultural production in sum of 123242 thousands lei. This factor covered positive influences of technical equipment and production means efficiency utilization and, in sequence, in 2006 global agricultural production decreased with 5.5% in comparison with 2005. As a result of analysis basing on the complex factorial model lack of poise in production factors utilization can be determined and administrative decisions to regulate processes from operational activity of agricultural enterprises should be taken.

CONCLUSIONS

1. Application of traditional models of factorial analysis means, as a rule, the determination of a single factor (landed fund, labour force and fix means) influence on modification of resulting indicators and, thus, a triple production increment versus the real one is obtained. On order to avoid this disadvantage a complex model of analysis to combine common influence of utilisation of agricultural lands, labour force and fix means under the deviation of global agricultural production value and incomes from sales is proposed.

2. Basing on the results of the performed research we consider that at the level of an agricultural enterprise estimation of production factors efficiency could be appropriate by using the following:

- partial indicators of efficiency to reflect compensation of an effort by the production obtained;
- complex factorial model that includes basic components of production factors and simultaneous influence of these on the formation of operational activity.

3. Basing on the data of 281 agricultural enterprises of the Central region of the Republic of Moldova a simultaneous influence of production factors on modification of global agricultural production value was identified. As a result of factorial analysis it was established that an increase of degree of

technical equipment and fix means efficiency contributed to increase of global agricultural production with 11506 and 74323 thousands lei respectively. The reduction of the workers engaged in agriculture covered positive influences of technical endowment and production means efficiency utilization and, in sequence, in 2006 global agricultural production decreased with 5.5% versus 2005. The obtained results have shown negative impact of decapitalization of agrarian branch and nonsatisfactory utilization of human potential in the Republic of Moldova.

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THE IMPACT OF SUBVENTION OF AGRICULTURAL PRODUCERS ON ECONOMIC EFFICIENCY OF PRODUCTION POTENTIAL

Natalia TCACI¹

¹State Agrarian University of Moldova, Chisinau, Mircesti street, 44, tel. 373-22-212808, e-mail: tcaci.natalia@yahoo.com

Key-words: *subvention, production potential, economic efficiency*

Abstract

Increase of the production potential efficiency and of financial stability is determined by the application of argued system of maintenance of agricultural enterprises by state organizations. In 2008 comparatively with 2007 and 2006 an essential growth of subsidies and endowments with 67, 9 and 62, 8 millions lei respectively is observed. But acute problem consists in fact that economical efficiency of the subventions has not been studied yet. Thus, the core criteria of estimation of economical efficiency of subsidies, such as overall agricultural production per leu of subsidies, endowments and compensations are proposed in the article. At the same time, the application of the correlation ratios between growth rhythm of the overall agricultural production and growth rhythm of subvention sums is proposed.

INTRODUCTION

One of the objectives of the Republic of Moldova Government for the year 2010 is to insure alimentary security of the country by import substitution and increase of export. The entire system of subventions for this year is oriented to reach this aim. However, in order to increase the efficiency of subventioned sums elaboration of some indicators to estimate objectively efficiency of endowments and compensations applied for the agricultural enterprises from the state buget is needed [1]. In spite of the fact that at the actual stage subvention has not allowed to reach the anticipated effect we should recognize its significant role in increase of production potential and identify the main factors of subvention process to contribute to the rise of economic efficiency and financial stability of agricultural enterprises.

MATERIAL AND METHOD

The informational basis of the research constituted statistical and financial reports of 335 agricultural enterprises of the Central region of the Republic of Moldova. The methodological support of the research was represented by legislative and normative documents of the Republic of Moldova and

main concepts of the economy scientists on the problem. The methodology of the study included the following methods: comparison, division, dynamics seria and statistical grouping.

RESULTS AND DISCUSSIONS

As a result of scientific research it was established that until present time state organs are not able to ensure a stable development of agriculture which greatly depends on economic potential of agricultural units as well as on climate factors [2].

In this way, we consider that to increase economic potential and financial stability of agricultural enterprises the application of a well argued system of state support is needed. The sum of endowments and subventions allocated to agricultural producers of the Republic of Moldova increased essentially in 2007 and 2008 versus 2006 with 67.9 and 62.8 thousand lei respectively (table 1). In the reviewed period modifications in subventions structure were also produced. Thus, in 2006 the sums allocated from buget were directioned only to endowments for agricultural production (9%) and compensation of expenses and consumptions for agricultural production (91%). In 2008 in comparison with 2006 endowments rate for

agricultural production increased from 9.0 to 1.62%. From the sum allocated for subvention compensations of agricultural enterprise losses due to natural calamities constituted in 2007 and 2008 5.32 and 2.74% respectively. In the reference period the sum directioned from buget to compensate expenses and consumptions for agricultural production was reduced from 91% in 2006 to 1.59% in 2007 and 1.28% in 2008. In 2007 and 2008 other forms of support, for instance, subvention of agricultural producers having a predominant quota of 62.47 and 50.62% respectively, were applied. In 2007-2008 a significant part of the support was due to other compensations and subventions, which constituted 27.38 and 33.74%. In order to know concrete directions of allocation for subvention the mentioned articles should be divided according to their components.

At present time in autochthonal practice the subventioned sums are not monitorized, the directions of their use are not known and their efficiency use is not analysed.

In this context we will formulate our point of view on estimation of efficiency of endowments, subventions and compensations use in agricultural enterprises. We consider that the main criteria to determine economic efficiency of subventioned sums is the value of global agricultural production per one leu of endowments, subventions and compensations. Basing on its meaning this is a relative indicator of efficiency, the statement confirmed by the data presented in table 1.

According to the calculations made in table 1 we can see that generally in the Central region the rhythm of growth of endowments, subventions and compensations in 2007 and 2008 is significant. This can be explained by the fact that in 2006 a rather symbolic sum of 564 thousand lei was allocated, of them 51 thousand lei were distributed to the district of Ialoveni as a dotation for agricultural production and 513 thousand lei to the district of Anenii Noi as a compensation for forage corps.

Taking into consideration the calculations performed in table 1 we can observe a reduction of growth rhythm of global agricultural production in 2007 with 13.4%,

which is a result of spring frosts and prolonged drought. In 2008 global agricultural production increased with 40% in comparison with 2006.

Table 1. Efficiency of subventions use in agricultural enterprises of the Central region in dynamics

| Indicators | 2006 | 2007 | 2008 |
|---|---------|--------|--------|
| 1. Sum of endowments, subventions and compensations, thousand lei | 564 | 68464 | 63344 |
| 2. Rhythm of growth of endowments, subventions and compensations, versus 2006, coefficient | x | 121.4 | 112.3 |
| 3. Value of global agricultural production in comparable prices, thousand lei | 643966 | 557717 | 900963 |
| 4. Rhythm of growth of global agricultural production, coefficient | x | 0.866 | 1.4 |
| 5. Global agricultural production per one leu of endowments and compensations, lei | 1141.78 | 8.15 | 14.22 |
| 6. Rhythm of growth of global agricultural production per one leu of subventions, coefficient | x | 0.007 | 0.012 |

The increase of subventions efficiency with 42.7% in 2007 versus 2008 is a result of a reduction of the allocated sum with 5.1 thousand lei and increase of global production with 343.2 thousand lei.

To analyse thoroughly the efficiency of subventions use we performed grouping of enterprises according to the sum of endowments, subventions and compensations per one hectare of agricultural lands. The results of grouping (table 2) demonstrate that 76 agricultural enterprises do not receive subventions from buget which constitutes 22.7% of the totality studied. From the total number of enterprises in 112, or 33.4%, the size of subventions was just 81.6 lei per one hectar.

In spite of the fact that groups 2 and 3 profited by buget subventions their activity in 2007 and 2008 was unprofitable. Thus, the sum of net losses per a hectare of agricultural lands constituted 1405.8 and 327.9 lei respectively. The quota of this enterprises in total subventions sum was 11.6%. Moreover, the sums directioned to support agricultural enterprises in groups 2 and 3 did not allow to compensate the embezzled means dou to the distorsion of prices on agricultural products, mineral fertilizers, pesticides, petrol etc. and,

in sequence, net current actives have negative values.

The allocated sum did not allow the enterprises from group 2 to obtain global production incomes from sales, gross profit and net profit at the same level with non-subsidized group 1. Moreover, a reduction of production potential efficiency was observed in group 3 where the sum of endowments per one hectare constituted 293.2 lei.

Table 2. The size of subventions and the efficiency of production potential in agricultural enterprises of the Central region (in average in years 2007-2008)

| Indicators | Groups of enterprises according to the sum of subventions at one hectare of agricultural lands, lei | | | | | | In average in analysed enterprises |
|--|---|----------|------------|------------|-----------|---------------|------------------------------------|
| | 0,00 | 0,01-200 | 200,01-400 | 400,01-600 | 600,1-800 | More than 800 | |
| 1. Number of enterprises | 76 | 112 | 40 | 25 | 26 | 56 | 335 |
| 2. Sum of endowments, compensations and subventions per one hectare of agricultural lands in average in group, lei | 0,0 | 81,6 | 293,2 | 488,3 | 689,6 | 2829,8 | 730,4 |
| 3 Surface of agricultural lands, ha | 369,5 | 622,9 | 605,1 | 341,4 | 407,0 | 368,5 | 452,4 |
| 4. Production consumptions per one hectare, lei | 13937,0 | 7976,9 | 8246,3 | 9652,2 | 11846,2 | 14299,7 | 10898,6 |
| 5. Related to one hectare of agricultural lands, lei: | | | | | | | |
| - global agricultural production in comparable prices | 6627,8 | 5347,5 | 5355,0 | 7677,1 | 9980,4 | 11495,9 | 7347,3 |
| - incomes from sales | 8876,2 | 7629,4 | 8111,5 | 10824,8 | 16210,5 | 27308,3 | 12660,1 |
| - gross profit | 1703,9 | 472,6 | 466,1 | 2091,7 | 2653,7 | 3187,0 | 1762,5 |
| - net profit | 422,1 | -1405,8 | -327,9 | 1090,8 | 1327,8 | 2585,8 | 564,5 |
| 6. Level of ensurance with current net actives, % | 27,4 | -11,2 | -8,7 | 51,9 | 56,2 | 64,7 | 28,3 |

In comparison with group 1, in groups 2 and 3 a reduction of the global agricultural production per one hectare of the agricultural lands with 19.32 and 19.2% respectively took place. Incomes from sales decreased with 14% and 9.6% and gross profit by 3.6 and 3.66 times respectively.

We would like to mention that in groups 2 and 3 a prevalent quota is occupied by agricultural enterprises with a reduced level of efficiency use of landed fund as well as other production factors in comparison with the rest of enterprises. In groups 2 and 3 a prevalent quota is occupied by agricultural enterprises with a reduced level of landed fund efficiency use as well as of production means.

These results demonstrate us that subvention was offered to agricultural enterprises that do not use production factors efficiently which in turn has a negative impact on financial situation of agricultural units especially on

decrease of investment attraction to agrarian branch.

According to the calculations made in table 2 we can establish that endowments and subventions are effective when allocated in the value of > 485 lei per one hectare of agricultural lands. Thus, in group 4, where the sum of subventions per one hectare constituted 488.3 lei, a considerable increase of the global agricultural production, incomes from sales, net profit and gross profit in comparison with the first three groups, as well as with mean value of enterprises analysed, was observed.

In the reviewed period (2007-2008) 56 enterprises, or 16.7% of the total number, received subventions in the value of 2830 lei per hectare. Concomitantly production consumption increased in comparison with groups 2, 3, 4 and 5 with 79.3%, 48.1% and 20.79% respectively. As a result, increase of incomes from sales 2.16 times, of gross profit 1.81 times and net profit 4.58 times took place.

At a confirmation calculations performed in table 2 demonstrate the existence of the appropriateness between the modification of production consumption at a hectare and indicators of economic efficiency. Simultaneously with the increase of endowments at a hectare a rise of production consumption took place. The highest level of consumption recovery was obtained in groups 5 and 6 where the level of the agricultural production profitability constituted 22.4 and 22.3% respectively or 6.23 and 6.06 percent points higher than in average in enterprises examined.

From our point of view this can be explained by the fact that subvention can ensure an immediate recovery only if the allocated sums are administrated efficiently according to the special destination.

Concomitantly we would like to mention that in conditions of financial crisis an objective assessment of the allocated subventions can be done from the viewpoint of parity of prices of agricultural production and industrial production used in agriculture. We consider that minimal value of subventions should cover the sum of eluded circulating means in connection with the disproportion of prices.

CONCLUSIONS

1. The sums subventioned by the state to support autochthonal agricultural producers from the Republic of Moldova have not ensured a high level of the efficiency, among the main causes being a reduced level of the endowments that do not cover the value of the seeds, grain forage and fertilizers which rose in price 2-3 times, use of the own grain material that does not correspond to the quality standards, a decrease of the quantity of incorporated fertilizers which became more expensive and non-fulfilment of the technological operations in phytotechnics because of the use of worn-out (60-80%) agricultural machines and rise in price of petroleum products.

2. At the actual stage measures to monitorize the value of subventions, their structure and concrete directions of use are needed. In our vision one of these measures are correction of subventions according to the sum of

supplementary consumptions which are conditioned by the prices distorsion as well as by elaboration of a mechanism of state regulation of agricultural production prices

3. We consider that minimal size of subventions should cover the embezzled sum of circulating means in connection of prices distorsion. Thus, subvention may be assessed as an economical stabilizer in conditions of prices distorsion between agricultural products and products of industrial origin used in agriculture, which in turn will allow agricultural producers not only to survive but to carry on a profitable activity.

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THE TECHNICAL ECONOMICAL ANALYSIS OF THE SERVICES OFFERED BY HOTEL TRIUMPH S.A. BRAILA

Cristiana TINDECHE

University of Agricultural Sciences and Veterinary Medicine, Bucharest 59 Marasti, sector 1, 011464, Bucharest, Romania, Phone: +40 21 318 25 64/232, Fax: + 40 21 318 28 88 ,
E-mail: tindeche_cristina@yahoo.com

Key words: technical economical analysis, tourists, hotel, SWOT analysis

Abstract

The hotel industry, but especially the quality of the accomodation service influences not only the turism development in generraly, but also the efficiency of this activity. By the attraction that they have on people, the accomodation services assure a good exploitation of the touristic potential, of the labour's availability, of the technical and matherial basis capacity, leading towards a higher exploitation efficiency. The diagnostic analysis made inside the economical unit has as its main purpose founding symptoms, economical activities dysfunctions, determining status and "therapy" from which to produce improvement, redressing and recovery of the analysed phenomenon.

INTRODUCTION

The unit considered for the study is Triumph Hotel from Braila which by the quality of its services is the absolute leader in Braila hotel market being classified in three stars standard. Tourism demand is supported by tourist motivation, which is always deeply personal and subjective. So the hotel is intended mainly for business people, as they represent a share of 40.70%.

MATERIAL AND METHOD

To achieve the target goals is necessary to take decisions to ensure the passing of the tourism enterprise from a status to another and adjusting its functioning.

The technical and economical analysis is based on the establishment of specific indicators having their formulas in the specialty literature.

RESULTS AND DISCUSSIONS

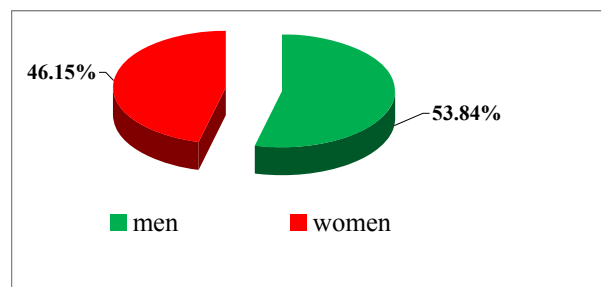
The registered capital of S.C. Triumph is in total amount of 16.191.700 RON.

The aim is that the number of men employed be approximately equal to women's, the issue achieved, as revealed in the table about the women engaged in the hotel.

Table 1 - Staff Structure

| Specification | 2009 | |
|-----------------------------|------|-------|
| | No. | % |
| Total staff of whom: | 65 | 100 |
| Men | 35 | 53.84 |
| Women | 30 | 46.15 |

Fig. 1 - Graphical representation of the staff's structure



The customers are primarily old people, who come primarily for business but for recovery and good shape.

The analysis of the fluctuation of total tourists number between 2007 and 2009 shows an increase from 6636 (in 2007) to 5869 (in 2008), and also a little increase in 2009 in comparison to 2008, reaching at 5920.

-during the entire analysed period the Triumph Hotel offers 186 accomodation places, in which 63 are single room, 6 are matrimonial rooms and 7 flats;

Table 2. - Touristic activity analysis

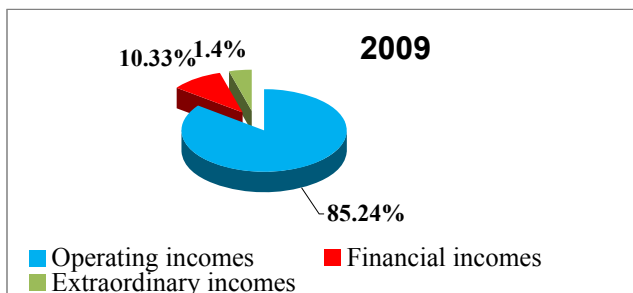
| Specification | 2007 | 2008 | 2009 |
|-------------------------------|-------|-------|-------|
| No. of tourists of whom: | 6636 | 5860 | 5920 |
| Romanians | 164 | 168 | 166 |
| Foreigners | 6472 | 5701 | 5736 |
| No. of nights | 5321 | 4837 | 4759 |
| No. of accommodation places | 186 | 186 | 186 |
| Occupancy rate -% | 59,10 | 57,66 | 58,96 |
| Average length of stay - days | 8,34 | 7,47 | 6,48 |

-the year 2007, when there stayed 6636 tourists, has the highest of the hotel's occupancy rate.

Table 3. Total income structure between 2007 and 2009

| Specification | 2007 RON | 2008 RON | 2009 RON | Rate (%) | | |
|-----------------------|----------|----------|----------|----------|-------|-------|
| | | | | 2007 | 2008 | 2009 |
| Total incomes | 343.876 | 444.470 | 563.170 | 100 | 100 | 100 |
| Operating incomes | 317.470 | 385.820 | 476.130 | 80,89 | 84,38 | 85,24 |
| - accommodation | 295.680 | 365.450 | 450.200 | 68.72 | 65,63 | 62.84 |
| - restaurant | 17.280 | 15.420 | 20.550 | 18,83 | 15,25 | 18,17 |
| - other incomes | 4.510 | 4.950 | 5.380 | 3,34 | 3,50 | 4,23 |
| Financial incomes | 20.606 | 54.300 | 80.450 | 11,49 | 10,58 | 10,33 |
| Extraordinary incomes | 5.800 | 4.350 | 6.590 | 5,63 | 5,03 | 4,42 |

Fig. 2 - Graphical representation of the income structure in 2009



The values of the previous period and current period, lead to the following conclusions: operating profit is higher than gross profit due to higher financial costs, which leads to a financial loss as a result.

Table 4 - The total expense structure between 2007 and 2009

| Specification | 2007 | | 2008 | | 2009 | |
|-------------------------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % |
| Total | 325.632 | 100 | 410.220 | 100 | 499.750 | 100 |
| Operating expenses | 279.382 | 85.79 | 356.720 | 86.95 | 421.900 | 84.42 |
| material expenditure | 25.800 | 7.92 | 33.400 | 8.14 | 55.000 | 11.00 |
| expenditure on salaries | 90.700 | 27.85 | 135.200 | 32.95 | 143.000 | 28.61 |
| expenditure on goods | 20.950 | 6.43 | 26.480 | 6.45 | 30.500 | 6.10 |

| | | | | | | |
|-------------------------------------|--------|-------|--------|-------|---------|-------|
| expenditure on building maintenance | 18.400 | 5.65 | 22.250 | 5.42 | 25.000 | 5.00 |
| costs of gas, water, sewer | 32.582 | 10.00 | 37.280 | 9.08 | 40.500 | 8.10 |
| postal charges | 5.450 | 1.67 | 7.260 | 1.76 | 9.300 | 1.86 |
| tax charges | 81.200 | 24.93 | 88.400 | 21.54 | 110.000 | 22.01 |
| other expenses | 4.300 | 1.32 | 6.450 | 1.57 | 8.600 | 1.72 |
| Financial expenses | 45.750 | 14.04 | 51.800 | 12.62 | 75.350 | 15.07 |
| Extraordinary expenses | 500 | 0.15 | 1.700 | 0.41 | 2.500 | 0.50 |

Fig. 3 - Graphical representation of the total expenses between 2007 and 2009

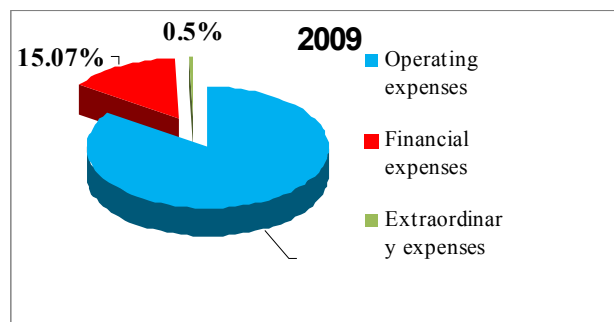


Table 5 - Evolution of profit by types of activities

| Details | 2007 (RON) | 2008 (RON) | 2009 (RON) |
|-------------------------|------------|------------|------------|
| Operating incomes | 317.470 | 385.820 | 476.130 |
| Operating expenses | 279.382 | 356.720 | 421.900 |
| Operating profit | 38.038 | 29.100 | 54.230 |
| Financial incomes | 20.606 | 54.300 | 80.450 |
| Financial expenses | 45.750 | 51.800 | 75.350 |
| Financial profit (loss) | -25.144 | 2.500 | 5.100 |
| Extraordinary incomes | 5.800 | 4.350 | 6.590 |
| Extraordinary expenses | 500 | 1.700 | 2.500 |
| Extraordinary profit | 5.300 | 2.650 | 4090 |
| Gross profit | 18.244 | 34.250 | 63.420 |
| Profit tax | 2.919,04 | 5.480 | 10.147,2 |
| Net profit | 15.324,96 | 28.770 | 53.272,8 |

The financial charges have a higher weighting than the financial income, which causes a decrease in total profit. This signifies a weak financial policy, imposing its improvement by lowering financial costs, which may be due to loans.

The only growth was achieved by the exceptional revenues, leading to exceptional profit increase and implicitly of the total one.

The SWOT analysis of the hotel

Strong points:

- hotel's staff
- relationship between quality and price
- very good settlement
- qualified workforce
- modern technology of information management

- good condition and working of equipment and facilities
- architecture, comfort, decoration and fitting rooms
- body center
- pool

Weak points:

- doesn't have sport field
- there is no entertainment in the hotel

Opportunities

- knowing competition from all points of view (relationship between quality and price, development strategies, etc)
- market's directions
- attracting new foreign customers

Threats

- big companies' expansion in touristic field
- local charges
- decreasing revenues of the population
- tourists' migration to touristic areas from other countries

CONCLUSIONS

1. Analysing the data presented one can observe an improvement in the situation of the main indicators. One can notice an increase in revenue, eliminating the inflation's influence and also an increase by about 4 percent of the occupancy rate.

The hotel practices an advertising towards customers in order to maintain their loyalty.

2. In the years 2007 - 2009 all revenues recorded increases, exceeding the revenues of the previous period (from 343.876 in 2007 to 444.470 in 2008 reaching to 563.170 in 2009).

3. In comparison to other incomes, the operating incomes have the highest rate of the total (more than 80%).

4. We notice an increase in total expenditure, compared with earnings even if the share costs

of accommodation and services is less than the costs of food.

5. Operating expenses have increased throughout the period under review.

6. In the years taken into account, the largest share of operating expenses comes from salaries expenditure, followed by tax expenses.

7. In 2009 the restaurant contributed over 16,000 Ron at the turnover of the company, which meant 4.000 Ron more than previous year. And this happened even if the hotel hasn't complaints about the quality of services and menus were, in generally, assessed positively.

8. One can also see a concern for improving the services offered, menus, general state of cleanliness and diversification of services offered.

9. They seek excellence in services, with immediate responses to any request and enough information to encourage tourists to choose the hotel.

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THE ANALYSIS OF LEADER'S PROFILE FROM EMOTIONAL INTELLIGENCE PERSPECTIVE

Cornelia Elena TUREAC¹, Ioan BORDEAN¹, Anca Gabriela TURTUREANU¹, Gabriela PADURE²

¹University Danubius, 3 Galatzi , Zip code 800654, Galatzi, Romania, Phone: +40 74 510 53 79
Email: cornelia_tureac@yahoo.com, ioanbordean@yahoo.com , ankterra@yahoo.com

⁴Raiffeisen Bank, Costache Negri Agency, 3 Galatzi, Zip code 800654, Galatzi, Romania, Phone: +40 72 691 79 18, Email: gpadure@yahoo.com

Key words: *profile's leader, emotional intelligence, quality management, score*

Abstract

The emotional intelligence meets a significant role in the development of the leadership capacity. True leaders impresses us, they wake passions and stimulate what is best in us. The purpose of the paper is to analyze the leader's profile from emotional intelligence perspective. The research is aiming to achieve the following objectives: determining the emotional IQ coefficient of the participant leaders in the research, determining the degree of dominance of the emotional intelligence components and identifying the weak areas of the inventory leaders in terms of these components, achieving the leader's profile. As used methodology we applied the assessing questionnaire of Emotional Intelligence of the leaders. The results of the practical research highlight the huge importance of changes and emotional contagion both in the interpersonal relations within the company and in work relations. Achieved mainly by intuition and recognizing the emotions and sentiments of the others and knowledge of their own emotions and sentiments, the emotional contagion stands at the hand of leader in motivating the personnel, effective management of the activity and conducting towards purpose and achieving the company objectives.

INTRODUCTION

To carry out the study referring at determining the degree of Emotional Intelligence and determining a profile of the leaders from these perspective it was proposed to perform it at 10 leaders of some agencies of tourism from Bucharest, from which the tourism agencies of tour-operator and tourism agencies retailers[6]. In the research carried out it was followed to reach the following objectives:

1. Determination the coefficient of emotional intelligence of the participant leaders at the research
2. Determination the degree of domination of the components of emotional intelligence and identification the weak areas of the inventoried leaders in terms of these components;
3. Realizing the profile leaders

As used tool to achieve the objectives mentioned above it as the Emotional Intelligence of the leaders questionnaire of evaluation from the book "The Art and Science of Leadership" by Avsaneh Navahandi, and adapted for the leaders of the tourism agencies[7].

MATERIAL AND METHOD

Determining the coefficient of emotional intelligence

In the research carried out it was followed to reach the following objectives:

1. Determination the coefficient of emotional intelligence of the participant leaders at the research
2. Determination the degree of domination of the components of emotional intelligence and identification the weak areas of the inventoried leaders in terms of these components;
3. Realizing the profile leaders

As used tool to achieve the objectives mentioned above it as the Emotional Intelligence of the leaders questionnaire of evaluation from the book "The Art and Science of Leadership" by Avsaneh Navahandi, and adapted for the leaders of the tourism agencies. The questionnaire contains a total of 50 questions, structured into 5 parts , namely those focusing on 5 key components of emotional intelligence: self-consciousness – which is based on the organizational awareness and knowledge of their strengths

and limits, accurate self-assessment; self-control – is focused on understanding the own emotions and recognizing their impact, also controlling the emotions and rebel impulses, transparency, adaptability, ambition, initiative and optimism; self-motivation – is focused on improving and creativity, guiding the emotions in the service of a goal, which is essential for self-motivation; empathy (9 questions) – is based on the perception of the emotions of others; relation management (15 questions) – which is based more on inspired leadership, influence, training others, catalysis the changes, conflict management, team spirit and cooperation.

At the questions of the respective questionnaire is answered by “true” or “false”. For each answer “true” is given one point, and for the “fake” ones is given zero points. Finally is established a total of points for each component of the emotional intelligence in part, then a total overall to establish the IQ of emotional intelligence of each leader. Those who record a higher score show a high coefficient of emotional intelligence in leadership. Depending on the score obtained is determined a low, average and high coefficient of emotional intelligence. This questionnaire, beside the fact that establishes a coefficient of emotional intelligence, in the same time helps to achieve a profile of the leaders studied in terms of emotional intelligence in leadership. Also in the basis of this questionnaire we analyzed each component of EI in part in all the 10 leaders, we established each leader what share of the respective component occupies in the total score of the coefficient. Finally, we identified the weak areas of the leaders, which recorded a lower share and then are coming with a program of improvement for those identified weak points.

RESULTS AND DISCUSSIONS

The emotional Intelligence is often measured as an Emotional Intelligence Coefficient (IEC) describes a skill or competence to observe, understand, assess and manage their own emotions, the emotion of others and of a group. If the IQ is inherited, is a generic given that can't be changed according to the

experience life, and our destiny is largely determined by this skill, the question is: What can we do for what we acquire by birth, our destiny, to be different, much better?

Goleman analyzes and explain exactly those situations in which persons with high IQ, over 140, although framed in the category Savant or Genius, fail to have success in society, while those persons with modest IQ are having a surprisingly good evolution in society. After applying the Emotional Intelligence Inventory to those 10 leaders participants to the research were obtained the following profiles of leaders, both on each component of the emotional intelligence, and as coefficient of emotional intelligence.

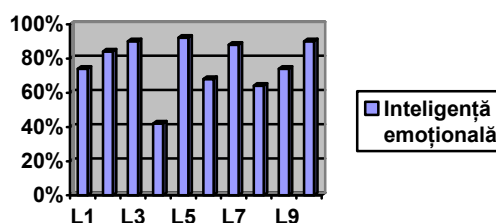


Fig. 1 Coefficient of emotional intelligence

Establishing the coefficient of emotional intelligence for each studied leader, they can be divided in 3 major categories, depending on the score obtained, as follows:

1. Leaders with coefficient of emotional intelligence (CIE) low – L4 (42%)
2. Leaders with average coefficient of emotional intelligence – L8 (64%), L6 (68%), L1 (74%), L9 (74%);
3. Leaders with high coefficient of emotional intelligence – L2 (84%), L7 (88%), L3 (90%), L10 (90%), L5 (92%).

Taking each leader in part we can establish its weaknesses and strengths and we can propose ways of improving them and of raising the level of emotional intelligence that we will develop further: L1 – leader with average coefficient IE (CIE=74%) has as dominant component the empathy, with average representations of the self-control, self-consciousness and self-motivation and lower values (but average) of management of social relations; L2 – leader with high coefficient EI (CIE=84%) excels in empathy and self-awareness, self-control, has a high value of the

self-control, representation of average level of the management of social relations and a relatively low value of self-motivation; L3 – leader with high coefficient EI (CIE=90%) has maximum values of the empathy and self-consciousness, high values of self-motivation and self-control and an average value of managing the social relations; L4 – leader with low coefficient EI (CIE=42%) presents a inversion in determinant plan of the value of emotional intelligence components. It has the highest values (although of average level) on the component managing the social relations, values under average on the components self-control and self-consciousness and low values of the empathy and self-motivation; L5 – leader with high coefficient EI (CIE=92%) has the highest coefficient EI among the undergoing leaders to the research. Its strengths are also empathy and self-consciousness, to which is added and self-motivation (all in maximum percent), having also a high degree of managing the social relations and an average representation of self-control (78%); L6 – leader with average coefficient EI (68%) presents the best representation on the component management of social relations, having values close to the self-motivation, averages of the empathy and self-control and low of self-consciousness; L7 – leader with high coefficient EI (88%) obtains the maximum value on the component of self-consciousness, it has high values of empathy and self-motivation, close (over average) of managing social relations and of average level of self-control; L8 – leader with average coefficient EI (64%) has the smallest coefficient EI from the group of leaders with average coefficient. Presents the same inversion in what concerns the share of the EI components having the highest value on the component of the management of social relations (of level average-high), average values of the components self-motivation and self-consciousness, and the lowest values on the components empathy and auto-control; L9 – leader with average coefficient EI (74%) has average values on all 5 EI studied components, slightly higher for empathy and self-motivation, the lowest value being self-control; L10 – leader with high coefficient EI

(90%) is maintaining the same trend, with maximum values of empathy and self-consciousness, high of self-motivation and self-control and of average level of the management of social relations.

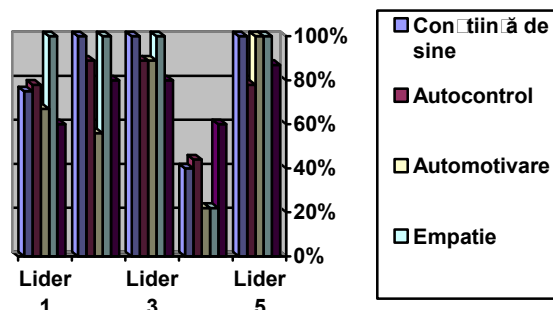


Fig. 1 Leader's profile on components of the emotional intelligence

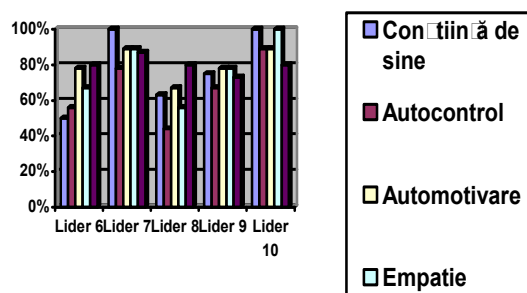


Fig. 2 Leader's profile on components of the emotional intelligence

Correlating these data with the leader's profile on components of the emotional intelligence we can study the share with which each component influences the final coefficient. Thus is observed that all 5 leaders with high coefficient EI excels in empathy and self-consciousness going to the conclusion that these components have a major share in establishing the degree of Emotional Intelligence. On the other hand the low scores of the coefficient EI bring on low scores on the same components. As overview, the components of emotional intelligence which must be improved to raise the coefficient obtained by the inventoried leaders are: self-motivation and self-control.

The coefficient of emotion being developed on the basis of all the characteristics of the emotional intelligence, it measures the latter how the IQ measures the intelligence. With other words CIE measures the general human affective ability and that everyone possesses in

varying degrees as the intelligence, as we can observe and from the above graphs.

Analyzing each component of emotional intelligence in part, there were obtained the following results for all 10 interviewed leaders:

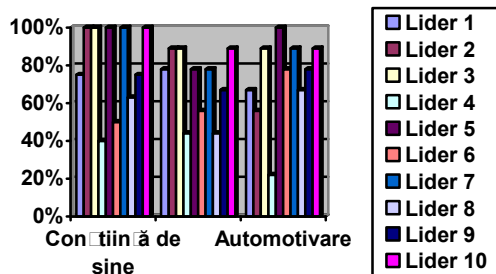


Fig. 3 Result components of emotional intelligence

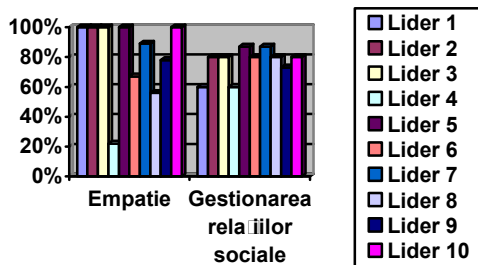


Fig. 4 Result of components of emotional intelligence

Is observed analyzing the obtained results that the empathy (81,2%) has the most important role among the components of emotional intelligence, half of the subjects obtaining maximum score, they being also identified with those that are having the highest values of CIE. The second place as share occupies the self-consciousness (80,3%) with values almost equal to those of empathy, and management of social relations (76,7%) occupies a central place, with average scores obtained by all leaders. The lowest overall scores (although varying between average values) are reached in the self-motivation case (73,5%) and self-control (71,2%), components of emotional intelligences which must be improved at all studied leaders. This involves implementing a development program of those components.

The results obtained above are observed best performing the weighted average of all scores on each component of EI in part, as shown in the chart below:

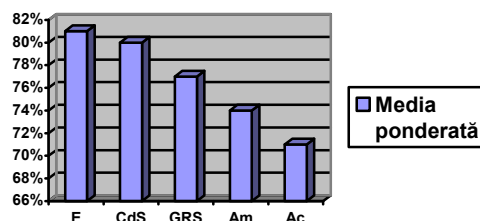


Fig. 5 Weighted average of all scores on each component of EI in part

As defined and conceptual, the practical research results are highlighting the immense importance of changes of emotional contagions both in the interpersonal relations within the company and in the work relations. Achieved mainly by intuiting and recognizing the emotions and feelings of others and knowledge of their own emotions and feelings, the emotional contagion stand at the hand of leaders in motivating the personnel, effective leadership of the activity and guiding toward the purpose of the company an achieving the company objectives.

Having at disposition especially a high degree of empathy and self-consciousness, the essential components of the EI as revealed by the performed study, the leaders with a high coefficient of emotional intelligence are benefiting by the emotional contagion effects on all levels of the organizations that they lead.

Inter-relations within the company and the informative, affective and dispositional receptions are directly affected by how the leader manages to dominate the subtle emotional spectrum. A high coefficient of the emotional intelligence offers to re leader the control over the emotional contagion on which it has access to the emotions, feelings and the others sentiments through empathy and appropriate management of their own emotions, feelings and sentiments through self-awareness. As outlined from al EI profiles made to the analyzed leaders, management of social relations play an important role in the emotional contagion. The competences of socializing, popularity and effectiveness in establishing relation with others it improves its access at the empathic states and prepares the ground for a successful leadership. However it

arises clearly from the performed research that these factor it isn't determinant either in the leadership quality and neither in the degree of emotional intelligence. It is thus obvious how closely are correlated the success of leadership and the high degree of emotional intelligence. Without the essential components of it, the leader is only very popular, not succeeding the emotional contagion which to ensure obtaining the expected results. The self-control and self-motivation are subject to change and as shown and from the proposed study is suitable from some development programs. Although not determinative, they are also important in ensuring the leadership quality. Managing the feeling and emotions into an appropriate manner through self-control sustains the self-awareness and it offers to the leader the advantage to impose in different situations and circumstances. Complemented by guiding those towards their intended purpose through self-motivation it closes the circle of a successful leadership. These last two components of the emotional intelligence can be improved significantly by specific techniques, especially on the fund of a consistency of the first components: empathy and self-consciousness. It mustn't overlook the cognitive intelligence, the component sinequanon of the success of any kind, but the emotional timing gives the leader that something that leads the cognition towards achieving the proposed purposes and objectives.

Moreover, at concrete level, of business, a empathic leader and capable of emotional contagion, so with other words with a high coefficient of emotional intelligence (as has been shown in the conducted research) excels in organizing the group, propose and negotiate solutions, has at hand a lot of personal connections and it is capable permanently to analyze from social point of view the organization the he leads. All this, beside the appeal to emotions, which they manage in their own benefit, provides the recipe of consistent, effective and productive management.

Another important factor of the management science it is decisively influenced by the emotional intelligence is the emotional

climate. In thig connection with the emotional contagion and somewhat derived from this, the emotional climate can be determined in achieving the performance and achieving the proposed objectives. The leader defined above through the emotional intelligence will permanently create a positive emotional climate mainly came from its ability to resonate with the others and from the management with maximum effectiveness of own emotional resources.

CONCLUSIONS

1. The emotional intelligence meets a significant role in developing capacities of leadership. According to some academic researches conducted, the leadership means over 90% emotional intelligence. For success at the highest levels for the leadership, the emotional competence is, virtual, the whole advantage.
2. After following the determination of the emotional IQ of each leader in part, we observed that 50% of them have high degree of emotional intelligence, which determines that some represent some genuine leaders, who can use their own emotions, feeling, and behaviours to achieve the success. Correlating these data with the leader's profile on components of the emotional intelligence we can study the share with which each component influences the final coefficient.
3. Is observed that all 5 leaders with high coefficient EI excels in empathy and self-consciousness going to the conclusion that these components have a major share in establishing the degree of Emotional Intelligence. On the other hand the low scores of the coefficient EI bring on low scores on the same components. As defined and conceptual, the practical research results are highlighting the immense importance of changes of emotional contagions both in the interpersonal relations within the company and in the work relations. Achieved mainly by intuiting and recognizing the emotions and feelings of others and knowledge of their own emotions and feelings, the emotional contagion stand at the hand of leaders in motivating the personnel, effective leadership of the activity

and guiding toward the purpose of the company an achieving the company objectives. Having at disposition especially a high degree of empathy and self-consciousness, the essential components of the EI as revealed by the performed study, the leaders with a high coefficient of emotional intelligence are benefiting by the emotional contagion effects on all levels of the organizations that they lead. The emotional intelligence (EI) is a core variable that affects the performance of leaders.

Emotional intelligence has often been conceptualized (particularly in popular literature) as involving much more than ability at perceiving, assimilating, understanding and managing emotions. The ability conception of emotional intelligence has some solid studies supporting it, although it has also been criticized in places.

Instruments used for measuring Emotional Intelligence include:

- EQ-I (Bar-On, 1997): a self-report instrument to assess those personal qualities that enabled some people to possess better emotional well-being than others.
- Multifactor Emotional Intelligence Scale (Mayer, Caruso, & Salovey, 1998): a test of ability where the test-taker performs a series of tasks that are designed to assess the persons ability to perceive, identify, understand, and work with emotion.
- Emotional Competence Inventory (ECI) (Goleman, 1998): a 360 degree instrument, where people evaluate either the individuals within an organization (Individual Feedback Reports) or the organization as a whole (Work

Force Audits). These audits can provide an organizational profile for any size group within the company. The Emotional Competence Inventory works with the 19/21 competencies that Goleman's research suggests which are linked to emotional intelligence

In conclusion, both as result of the own research as well as and from the theoretical model followed, we can say that the emotional intelligence determines the quality of leadership and the more the coefficient is higher the more the leader will face better to the challenges increasingly greater in leadership and will manage to achieve its intended purpose.

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LIVESTOCK AND MEAT PRODUCTION IN ROMANIA - COMPARED TO EUROPEAN UNION

Adrian TUREK RAHOVEANU¹

¹Institute of Research in Agrarian Economics and Rural Development, 61, Mărăști Blvd., 011464, Bucharest, Romania, phone/fax +4021 318.16.86, turek.adrian@iceadr.ro

Keywords: farms, animal numbers, production

Abstract

The sector of meat animals is one of the most difficult issues of the current Romanian agriculture. This is why the animal numbers should be examined compared to meat productions. Livestock for meat production is determined by existing production capacity of the farm.

INTRODUCTION

A rational food structure of the population is related to ensuring the amount of food energy such as animal protein. This is the main reason for livestock sector policies becoming a priority in the development of agriculture.

The sector of meat animals is one of the most difficult issues of the current Romanian agriculture. This is why the animal numbers should be examined compared to meat productions. In Romania *beef meat production* represents about 35% of total annual production of meat and about 5-6% of gross agricultural production in Romania. Thus beef sector includes the chain: production, processing, selling which is connected to milk and dairy products, along with other sectors of production and meat processing. Although there is some specialization, many farms are involved not only in beef production (given the mixed breeds), but also in milk production. Also, in Romania there are similarities between production systems for beef and sheep. Beef is often distributed and sold with or very close to pork or lamb.

Sheep meat production is linked to increased numbers of this species throughout Romania. Within marketed products, meat accounts less than 4% of the country's agricultural production.

Pork production - pork is the most important type of meat on Romanian markets, it accounts for 50% of total meat production. Traditionally, Romania was a net exporter of pork, but after

1998, it entered into a trade deficit, caused by a pronounced decline in swine.

Poultry production, including production of chickens, ducks, geese, turkeys, small birds and ornamental birds. Poultry meat production was estimated at about 15% of all animal production. This sector includes large-scale integrated units (10 such companies supplied about 75% of the total market for poultry meat) and small-scale producer households (although producing about 60% of total poultry meat).

MATERIAL AND METHOD

For this work to appeal to documentation and data obtained from the Statistical Yearbook of Romania, 1991-2008 editions. Likewise, the comparison method was used to capture differences between livestock and meat production in Romania - compared with the EU (reporting being done in some countries and, obviously, the EU average). Along with analysis and comparison to appeal and consolidated, taking into account the volume of information, diversity of livestock caused by the variety of natural and economic conditions of the 27 EU countries.

RESULTS AND DISCUSSION

Analyzing the structure of animal numbers and meat production made in Romania for the period 1990-2007 quantitative and

qualitative discrepancies can be found. Thus:
 ✓ numbers have declined for all species (compared to 1990). The rate of decrease of cattle, swine, sheep and poultry numbers was different. In cattle, sheep and swine there was sudden sharp decrease until 1995, decline to continue until 2005, when there was a stagnation in the number. In poultry this decrease was only 28.02% in 2007 compared to 1990. It is significant that the number is greater in the private sector. If in 1990 the private sector had between 28.5% and 46.5%, in 2007, this sector occupies over 99% of flocks of these five animal species. The main reason for this difference is the liquidation of

the former IAS farm sites and the actual growth recorded in the private sector was not sufficient to cover the difference from the reference year -1990;

✓ meat production, compared to the slaughter animals shows the same differences in the analyzed dynamics. If in the meat total in 1990/2007 there is a difference of -37.89%, the situation by species for cattle and sheep is the lowest, while in poultry there is the lowest rate of decline (of -24.63%). Private sector levels are rising in from 1990 to 2007 up to 99.0% - 100% for poultry, sheep and goats.

Table 1 Animal numbers and meat production made in Romania

| Item | 1990 | 1995 | 2000 | 2005 | 2007 |
|---|--------|-------|-------|-------|-------|
| Animal numbers (thousand head) | | | | | |
| Cattle | 6291 | 3481 | 3051 | 2862 | 2819 |
| Pigs | 11671 | 7758 | 5848 | 6622 | 6563 |
| Sheep | 15435 | 10897 | 8121 | 7611 | 8469 |
| Poultry | 113968 | 70157 | 69143 | 86552 | 82036 |
| Meat production (thousand tons live weight) (from animals of food use) | | | | | |
| Beef | 633 | 392 | 330 | 383 | 333 |
| Pork | 1010 | 882 | 670 | 605 | 642 |
| Sheep and goat meat | 203 | 152 | 116 | 114 | 110 |
| Poultry meat | 552 | 355 | 324 | 401 | 416 |
| TOTAL meat | 2420 | 1789 | 1447 | 1508 | 1503 |

Source: data in the Romanian Statistical Yearbook, NIS .1991 to 2008, processed by the author

EU countries - excluding Sweden and Finland, which have limited conditions for agriculture - have made great progress in the field of zootechnics. The results are reflected both in an increased number of animals and in the yields recorded. For the studied period (2000-2007), available data show the existing numbers and the differences from Romania:

✓ in *cattle* - in France, which has a 2.3 times larger area than Romania, the number of animals is 7 times higher (20.3 million head, compared to 2.9 million head in Romania during the studied period). Germany, which has a 1.49 times larger area, has almost 5 times more cattle than Romania. In England, which has an area 1.1 times larger than Romania, cattle numbers are 4 times higher. Ireland, with an area three times lower than Romania has 2.2 times more cattle;

✓ in *pigs*, meaningful comparisons can be made starting with the Netherlands, where they

breed, on average, 2.6 times more pigs than in Romania (13.1 million head compared to 5 million head). In Denmark they breed 2.4 times more pigs, meaning 5.5 head/hectare. In France they breed 3.0 times more pigs, meaning 0.8 head/arable hectare, 80 heads per 100 ha respectively. In Germany the number of pigs was 5.2 times higher than in Romania, which is 2.2 heads per hectare. In Spain they breed 4.5 times more pigs, meaning 1.7 head/ hectare (54 heads per 100 hectares respectively);

✓ in *sheep*, Spain is the country where they have an average 97,1 million head, which is 12.6 times higher than Romania. England, with 38,3 million head, has almost 12.6 times more sheep than Romania. Italy also breeds more sheep than Romania (11,1 million head compared to 7,6 million head). In France, sheep number (on average 9,4 million head) is decreasing from 11,19

million head in 1998 to 9,3 million head in 2005;

✓ in *goats*, there are countries where people appreciate the quality of milk from these animals, as well as kid meat, such as Greece, where they breed over 5 million goats, meaning 9.6 times more than Romania. Spain registered 5.3 times higher goat numbers than Romania, Italy - 2.5 times and France - 2.3 times higher numbers;

✓ *poultry farming* is more developed in France, which recorded an increase from 198 million head in 2001 to 240 million head in 2005 (with the actual flock France is 3.3 times higher than Romania). In Spain also, the number of flocks of birds rise from 111 million

to 128 million head, which is 1.8 times higher than Romania. In Germany the number of birds is maintained around 110 million head. This number is 1.6 times higher than that in our country. In all these countries intensive systems prevail, because the technique used can ensure greater labor productivity. Also, these systems can ensure a nutritionally balanced diet and a permanent monitoring of animal health. In France for example, 76% of poultry production is obtained in intensive systems, unlike Romania, where many intensive units were closed.

Table 2 EU animal numbers (average of years 2000-2007) - thousand head -

| Country | Cattle | | Pigs | | Sheep | | Goats | | Poultry | |
|-------------------|-------------|--------------|-------------|--------------|-------------|--------------|------------|--------------|--------------|--------------|
| | Head | % | Head | % | Head | % | Head | % | Head | % |
| Austria | 2148 | 73.9 | 3433 | 68.2 | 344 | 4.5 | 67 | 12.4 | 12000 | 17.2 |
| England | 11692 | 402.2 | 5971 | 118.7 | 38263 | 498.3 | 0 | 0.0 | 160000 | 228.6 |
| Belgium-Luxemburg | 3213 | 110.5 | 7201 | 143.1 | 151 | 2.0 | 18 | 3.3 | 55333 | 79.0 |
| Denmark | 1899 | 65.3 | 12307 | 244.6 | 150 | 2.0 | 0 | 0.0 | 20333 | 29.0 |
| Finland | 1040 | 35.8 | 1291 | 25.7 | 97 | 1.3 | 8 | 1.4 | 6333 | 9.0 |
| France | 20351 | 700.1 | 15201 | 302.2 | 9449 | 123.1 | 1224 | 226.6 | 230333 | 329.0 |
| Germany | 14484 | 498.3 | 25909 | 515.0 | 2739 | 35.7 | 145 | 26.8 | 108667 | 155.2 |
| Greece | 585 | 20.1 | 927 | 18.4 | 9069 | 118.1 | 5165 | 965.0 | 28333 | 40.5 |
| Ireland | 6432 | 221.3 | 1735 | 34.8 | 5061 | 65.9 | 7 | 1.4 | 8000 | 11.4 |
| Italy | 7147 | 245.9 | 8383 | 166.6 | 11019 | 143.5 | 1366 | 252.9 | 100000 | 142.9 |
| Norway | 340 | 11.7 | 416 | 8.3 | 2379 | 31.0 | 51 | 9.4 | 3000 | 4.3 |
| Netherlands | 4056 | 139.5 | 13064 | 259.7 | 1301 | 16.9 | 205 | 37.9 | 100667 | 143.8 |
| Portugal | 1411 | 48.5 | 2355 | 46.8 | 5547 | 72.2 | 606 | 112.2 | 35000 | 50.0 |
| Spain | 6289 | 216.3 | 22805 | 453.3 | 97122 | 1264.8 | 2857 | 528.7 | 128000 | 182.9 |
| Sweden | 1658 | 57.0 | 1897 | 37.7 | 437 | 5.7 | 0 | 0 | 6667 | 9.5 |
| Romania | 2907 | 100.0 | 5031 | 100.0 | 7679 | 100.0 | 540 | 100.0 | 70000 | 100.0 |

Source: Statistical Yearbook of Romania, INS, 2008

By enhancing production by using superior breeds, a good organization, by enlarging fodder crops, by diversifying them, by using the proper assortment mixes, higher yields will be possible, which will create and the premises of approaching Romania's animal breeding to EU level.

CONCLUSIONS

Rehabilitation and recovery of activities in the livestock sector in Romania should reach the following objectives:

- ✓ compliance with EU standards on product quality and the implementation of financial support mechanisms in order to ensure optimal ratios between costs and prices by product;
- ✓ organization of activities in animal farms and development of a commercial sector of small and medium farms, competitive on the market, capable of ensuring market operation and a reduced self-consumption;
- ✓ organization of animal breeders in viable forms of association, capable of ensuring the access to investment funds

inputs supply, as well as a favorable marketing of the products;

✓ to meet the demand for animal products from domestic production and expand sales in EU countries and exports to other countries.

With these purposes in view, medium and long term priorities for the meat sector are:

✓ to gradually ensure consumption demand at European standards;

✓ to achieve optimal animal density per area unit, to use the production potential of the forage base;

✓ investment in upgrading and expanding production capacity in the product channels, to ensure the achievement of food quality;

✓ increase in yields of the animal sector to ensure domestic raw material supply at national potential level;

✓ organization and operation of the product channels in order to ensure the acquisition,

processing and marketing in each stage of their way to the final user;

✓ higher competitiveness in animal farming and higher farmers income by approaching the market and providing financial support to stimulate the development of animal breeding.

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SOLUTIONS TO IMPROVE THE COMPETITIVENESS OF UPSTREAM AND DOWNSTREAM SECTORS IN DAIRY CHAIN

Adrian TUREK RAHOVEANU¹

¹Institute of Research in Agrarian Economics and Rural Development, 61, Mărăști Blvd., 011464, Bucharest, Romania, phone/fax +4021 318.16.86, turek.adrian@iceadr.ro

Keywords: *succession, competitive, farmers, traders*

Abstract

The competitiveness of agricultural products depends on input costs, demand conditions, the strategies adopted, the competitive environment and economic relations. In this paper we addressed the competitiveness of the dairy chain in three ways namely: organizational, technological and economic-financial.

INTRODUCTION

The main objective of competitiveness in the dairy channel is the development of stable, long-term regional market for dairy products, along with creating a consumer base. The functional quality of the products is discussed. The objective of competitiveness should be supported through the development of quality dairy products, which harmonizes the following activities: supply with fresh products, the production itself, the research and marketing, etc.. These should focus on market demand, observing the legislation in the field of dairy products and the principles of healthy eating.

MATERIAL AND METHOD

For this work to appeal to documentation and data obtained from the Statistical Yearbook of Romania, 2003-2008 editions. In studying the milk chain analysis method was used to capture existing weaknesses and risks along the chain, and based on existing strengths and opportunities in upstream and downstream could make some solutions to increase competitiveness. Along with analysis and synthesis to appeal, taking into account the large amount of information in the analysis of the milk chain in all its stages.

RESULTS AND DISCUSSION

The solutions to improve the competitiveness of milk channel are related to three key

aspects: organizational, technical-technological and economic-financial.

Reshaping sector structure can be achieved by increasing the activities considered key:

✓ ensuring supply with raw materials involves *the reorganization of the collection system* to capture the largest possible number of producers by:

- actions for starting zone partnerships and associations of milk producers, or associations based on the contract with-profit distribution;
 - attracting farmers in the privatization of milk companies by reserving for them a major package of shares on the same criteria to the employees;
 - establishment, organization and equipment of 535 new points of collection;
 - optimizing collection routes on economic criteria;
 - resizing collection device by reorienting the personnel in the processing companies;
 - better organization of the distribution network, of the concentrated fodder supplement, particularly in winter;
 - providing professional services and technical assistance to dairy producers.
- ✓ *organizational restructuring of productive activity*, which aims to link production capacity with raw material supply and market demand.

This means to establish the capacity remaining in service, while ensuring the good use of raw materials, without surpassing the

specific use of raw material and utilities, adopting of assortment variants meeting market requirements, efficiently using human potential.

The decision on increasing processing capacity should be taken, however, from case to case, based on feasibility studies.

✓ *reorganization of commercial and transport activities*, which is based on:

- improved organization of their existing store network or their new ones;
- extension of its stores in all villages in the county with strong demand for dairy products;
- targeting marketing departments work in the detection of market segments and / or niche outlets for superior products with high nutritional quality;
- using information system to optimize sales;
- increased activity of advertising and publicity to attract consumer interest to their products;
- resume / increase export activity in traditional markets and finding new markets.

Transport activity is to be reorganized and adapted to the specific area where dairy processing / distribution companies operate, aiming at enhancing and increasing economic efficiency.

Technical and technological restructuring, makes special reference to the processing companies, improvement of their technical and technological level is required, in order to: improve the quality of raw material, to obtain products with high quality indices to meet modern requirements of food, increased labor productivity and economic-financial profitability.

In the collection of raw material, technical restructuring involves:

- ✓ upgrading large collection centers;
- ✓ modern equipment to provide both hot water for washing and for cooling the milk;
- ✓ ensure the measuring and control equipment and the chemicals for the specific standard laboratory tests;
- ✓ isothermal tankers, equipped with cooling systems and measurement of capacity 2000 - 4000 liters.

✓ technological upgrading of dairy companies can be achieved through investment and technological lines and equipment with aggregate products from Romanian industry or imported highly productive ones;

✓ improving the packaging systems, quality packaging materials, to achieve some attractive packaging, of different weights, with high functional properties, which contribute to increasing competitiveness of food;

✓ replace currently used packaging (unattractive and uneconomic) to packages of the type used in EU countries, action based on the use of plastic material, cardboard with protective layers of foil, etc.;

✓ production guidance to assortments affordable for the general population, as well as assortments with high value and high nutritional qualities;

✓ use of scientific research resources in diversifying production, making dietetical products and children products, thus adapting to modern trends in nutrition (increasing the share of fresh, low fat content, etc.);

✓ improving manufacturing technologies of some products, eliminating losses and optimizing specific consumption (use of modern technologies like ultrafiltration and reverse osmosis);

✓ manufacture of highly preservable products (sterilized milk) to allow distribution of dairy products from areas with a lot of milk (Suceava, Mures, Bistrita, Maramures and Cluj), to those with little milk and in large towns;

✓ improve the physical-chemical, microbiological and nutritional qualities of the dairy products through: organization of own quality ensurance systems in all processing units, extension of technical control to all the manufacturing stages, as well as quality and hygiene and veterinary control in the milk farm up to the sale of products to customers;

✓ observing microclimate factors and ensuring the cold chain during storage, transport, sale etc; equipping companies with advanced information system to optimize

decisions and tracking technology flows with specific computers and computer programs;

✓ establishing of new retail outlets equipped with refrigerating for maintaining product quality until selling to consumers, and upgrading the existing ones;

✓ export growth for some dairy products required by international markets, first by approaching production technologies and quality standards to the level of the countries present on world dairy market, and secondly by increasing commercial advertising of Romanian products to win greater share of export volume on these markets;

✓ launching government programs to meet the needs of companies with specific equipment, measuring and control equipment and laboratory reagents, packaging and packing materials;

✓ government programs for new technologies, unconventional (using ultrasound, microwaves, radiation, infrared, ultraviolet) to help reduce consumption of raw materials, utilities and protection of consumer health and environmental protection;

✓ high-grade of by-products from milk processing, ensuring the use of all milk nutrients.

Economic and financial restructuring, is considered a necessity in all sectors of the channel, requiring a series of measures such as:

✓ liberalization of purchase price for raw milk, considering large differences in the free market prices in different parts of the country and the need to remove unfair competition between dairy companies and private companies;

✓ establishing tax systems and credit-financing systems for dairy farms, as state support for milk producers;

✓ different payment of milk by its quality, after developing quality criteria, bonuses and penalties for deviations from standard quality (a higher price will be established for supplying cooled milk);

✓ gradual removal of seasonal fluctuations in raw material by providing different payment for milk according to the season of delivery (bonus for winter);

✓ payment of grazing fees to the milk producers associations by milk companies and its recovery from the contract for milk purchase;

✓ methodologies for the allocation of funds for the private animal farmers, with payment to be made under contract for milk for a period of time;

✓ establishing premiums allocated by the state to promote higher quality of milk delivered for processing;

✓ bonuses and allocations granted by the State for the quantities of milk delivered in major urban centers in different counties with a developed economic sector;

✓ reduction of manufacturing costs by reducing consumption of raw materials, utilities.

CONCLUSIONS

Competitiveness is defined as that set of political factors and institutions that determine current level of productivity of a country. Competitiveness is considered a specific element of market economy in a globalized and knowledge-based economy.

The directions and measures that define the national strategy to sustain and promote dairy production, processing and distribution pursue domestic needs of these companies, but must also respond to EU requirements.

It appears that competitiveness in the dairy chain, starting from milk production place until final delivery to the consumer, can be estimated by:

1. existence and form of involvement of business support services, which facilitate movement of product between operators;

2. existence of cooperation networks between companies and inter-professional associations in the channel, financial institutions, consultants, etc.. All these are made to assess the potential of local and regional development, private financing, etc.. to deal with competition in the milk market;

3. existence and / or possibility to stimulate the formation of cluster system specific to the milk chain;

4. forms of export and / or the existence of programs to encourage such exchanges;

5. existence and form of allocating capital to business start-up or consolidation;
6. how venture capital and start-up capital were used for the introduction of research results into production or improving services;
7. stimulate research / innovation and expansion of excellence centres to guide the competitive orientation of milk channel;
8. development of information technique in all the channel and its structural level for each operator of the milk channel;
9. how human resource programs and reorientation programs are applied (after a preliminary assessment of the cooperation between different operators in the milk chain);

10. stage and forms to improve transport systems and networks;
11. ensuring environment quality.

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SPECIFIC IMPLEMENTATION OF TRACEABILITY IN AGRI-FOOD CHAINS

Magdalena TUREK RAHOVEANU¹

¹Institute of Research in Agrarian Economics and Rural Development, 61, Mărăști Blvd., 011464, Bucharest, Romania, phone/fax +4021 318.16.86, turek.magdalena@iceadr.ro

Key words: *food chain, traceability, information system*

Abstract

Building a complex information system and the existence of objective and subjective conditions create the prerequisites for information to become an effective economic instrument in the efficient use of economic mechanism in agriculture in general, in all its subsystems. Currently, with the integration of agri-food sector in Community structures, a new challenge occurs, which must be resolved by central institutions with responsibilities in animal husbandry and food industry and which consists in the development of traceability of products belonging to agri-food sector. In fact, this issue is an important part of agriculture information system, which aims to food quality and safety.

INTRODUCTION

Where comes the food consumed by your family from?

How did it get to the supermarket?

The label says "organic", but this is true?

Does it contain something that your daughter is allergic to?

Is it produced in an environment friendly way?

The ability to answer these questions lies in traceability applications and systems. In order to work, traceability systems must be aware of everything that's happening, every step from farm to your kitchen table. But with increased size and growing globalization of supply channels, traceability of food from one end to another has become more difficult.

New standards enabling tracing on a global scale - no matter how many companies are involved or how many borders are passed for food or food ingredients to get from one end of the supply chain to the consumer.

Traceability is especially important if something bad happens, and food should be withdrawn. Recent EU legislation obliges manufacturers to notify authorities and consumers of any potential risk arising from their products. Many other countries are reviewing the legislation on the subject. The farmers, willing to protect their reputation from the negative effect caused by degraded

products or poorly managed withdrawal of products, increase their own internal policies and methodologies for withdrawal.

Since they are global, ranging from one end of the supply chain to the other, they provide immediate access to accurate information about the product, allowing rapid and complete withdrawal of degraded products. But perhaps more important, these standards also ensure the quality and accurate inventory control, avoiding product withdrawal from the market.

MATERIAL AND METHOD

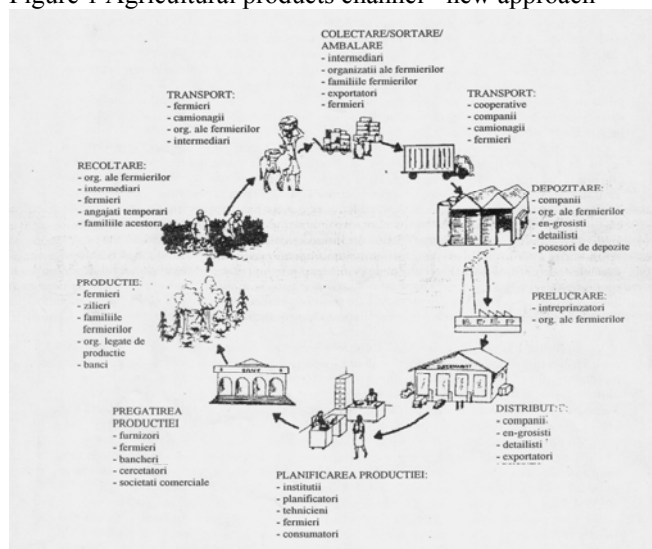
Representing the channel in the form of a circle expresses the idea of resuming the cycle, channel study starting from the market, from consumer requirements and unmet needs throughout the market and ending with the final act of sale (Figure 1). In the agri-food channel, traceability establishes links between the various entities and is achieved through an approach of information in a vertical plane, by considering the **three essential elements** - the consistency, standardized information and identity of the resource which is the subject of traceability.

The practical significance of traceability is evident in the food and processing sectors of agricultural and animal products, as being: an intrinsic part of the capacity to meet EU

legislative requirements, to take corrective action in withdrawing the products from the market and keeping company image or product brand, to minimize the size of lots withdrawn from the market, to reduce to the minimum the dissemination of any contagious diseases among animals, to protect food channel from the effects of diseases in animals, to provide products that fully meet customer requirements and create differentiated products on the market.

The traceability system provides useful information for end users but also for specific carriers of a particular agri-food chain. Thus, for end users traceability establishes: the origin of the food, processing moment and economic organizations involved in the processing. This information is also provided to the retail distributor. For wholesale distributor information concerns: the supply of new batches of products and at full distribution capacity, changes in transport, storage, etc. .*

Figure 1 Agricultural products channel - new approach



Source: La Gra, J., A commodity system assessment methodology for problem and project identification

RESULTS AND DISCUSSION

Traceability, as a process of the distribution plan, **can be conducted in two distinct directions:**

- downward traceability is the ability to locate items based on specific criteria, at any point in the distribution channel (tracking) and

- upward traceability is the ability to identify the origin and characteristics of a product based on criteria established in a uniform manner for all points of the supply channel (tracing).

To adopt a global and integrated approach for the concept of traceability, Community law considers all aspects of production channel: processing, transport and distribution.

In all links of this channel, legal responsibility to ensure product safety belongs to the manufacturer.

National and European authorities, that ANSVSA (The National Sanitary Veterinary and Food Safety Authority) in Romania and EFSA (European Food Safety Authority) in Europe, are designed to monitor and control compliance with norms and requirements in force.

At European level, there are two important laws governing the traceability: Directive (EC) 2001/95 on General Product Safety and Regulation (EC) no. 178/2002, on the General Food Law, applied since January 15, 2004 and, respectively, January 1, 2005, all EU countries. The provisions of the Community Regulation no. 178/2002 are taken totally by Law no. 150/14.05.2004 that regulates food safety obligations for the Romanians.

These regulations include the responsibility and the permanent ability of each operator to draw "a step backwards and a step forward". Each operator must be able to identify at any time of the process who (the person) has been supplied, what and from whom. Each operator is responsible to provide this information to the authorities.

Two types of best practices have been established as physical marking systems:

- ✓ Compliance with labelling system, with global rules;
- ✓ Implementation of computer applications and electronic communication media based on the standards of traceability.

CONCLUSIONS

Under current law, agricultural and food business operators will need to ensure traceability of food and food contact materials in all stages of their requirements, namely:

- ✓ animals that produce food directly or are used in the manufacture of certain foods, and traceability of any substances to be incorporated into food and material contact with such products;
- ✓ producers of agri-food sector will have to provide evidence on lots of food and food contact materials;
- ✓ operators will ensure identification of all persons who provide food materials, food or any substance to be or can be incorporated into food and food contact materials;
- ✓ agri-food business operators must have systems and procedures to identify companies that have supplied their products²;
- ✓ food placed or likely to be placed on the market must be labelled or marked appropriately through documents or relevant information to facilitate traceability of their food under the applicable regulations.

Currently, Romania experiences the complex process of implementing a system of identification and registration of animals, animal identification and registration legislation is transposed into national law. A legal framework known as the "hygiene package" has been created, including a set of laws developed by the EU³ , comprising specific rules on the documentation of products, processes and information exchanges between the operators involved in food channel.

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² Consequently, these must have systems and procedures allowing the access of control bodies to information, as well as the surveillance of authorized public bodies on their request

³ Regulations 852/2004/CE, 853/2004/CE, 854/2004/CE și 882/2004/CE.

PRODUCTION AND MARKETING STRUCTURES IN FISH FARMS OF SOUTH-WEST DEVELOPMENT REGION

Magdalena TUREK RAHOVEANU¹, Gheorghe IOSIF²

¹Institute of Research in Agrarian Economics and Rural Development, 61, Mărăști Blvd., 011464, Bucharest, Romania, phone/fax +4021 318.16.86, turek.magdalena@iceadr.ro

²The Bucharest Academy of Economic Studies, 1, Piata Romană Street, 010374, Bucharest, Romania, phone/fax +4021 319.19.00

Key words: *fish farms, fishing areas*

Abstract

This study used questionnaires distributed in SE Region in order to obtain information on fish farm activity, access to fish resources, to fishing areas, fish prices and finally on the economic results obtained. A sample of 10 farms was studied, their having an average income being used to diagnose production and marketing activities in the current stage. This study considered the activity of two representative fish farms in SE Development Region.

INTRODUCTION

The need for this research results from the changes in the fish product market, where there is a trend of change in consumption pattern, from conventional foods to traditional and / or organic, for certain categories of consumers.

Fish production of high value and quality must be encouraged instead of a simple increase in production of traditional species. An increase in added value through processing and marketing is an opportunity, as well as diversification to new species (sturgeon, turbot, mollusks etc), but also to tourism and related activities such as fishing lakes.

MATERIAL AND METHOD

It should also be emphasized that the analysis of production structure must be made together with the study of marketing structures, turnover evolution respectively. Thus it can be established whether changes in the structure of sales economically favored the fish farm.

- ✓ the diagnosis of fish farming activity in the sample went through the following steps: identification of issues to be analyzed;
- ✓ determination of the necessary information system;

- ✓ analysis and presentation of findings in a report which objectively reflects the status, appraisals, recommendations;

- ✓ arguments and a set of management measures geared towards improving work farms analyzed.

The evolution of turnover shall be based on known statistical models. The veracity of the conclusions is given by the accuracy of the information used and the time period considered, in our case such period shall be at least three years of activity. Time analysis of turnover is more suggestive when done on the basis of comparison with indicators of business effort (number of personnel, fixed assets, of working time).

RESULTS AND DISCUSSIONS

Changes in production structure of fisheries during the three years has influenced the average delivery price and, ultimately, the turnover of the holding.

Thus, in 2006 fresh fish represented 60% of the total quantity of fish delivered, in 2007 the product reached about 56% and in 2008 the share of fresh fish delivered was only 45.5% of the total production of fish delivered. This change in structure has helped to increase overall turnover resulting from the fish market, which consisted in 2008 in the

turnover from the sales of fresh fish (43.7%), and frozen fish (56.3%).

Table 1 Production (QM), selling price per unit of product (PK) and turnover (CA) of the Tulcea farm

| Fish species | 2006 | | | 2007 | | | 2008 | | |
|-----------------------|------|--------|----------|------|--------|----------|------|--------|----------|
| | tons | lei/kg | thou lei | tons | lei/kg | thou lei | tons | lei/kg | thou lei |
| 1. Fresh fish | | | | | | | | | |
| Carp 1-2 kg | 25 | 5.0 | 125.0 | 16 | 5.5 | 88 | 5 | 6.0 | 30.0 |
| Carp 2-10kg | 20 | 7.5 | 150.0 | 25 | 8.0 | 200 | 25 | 8.5 | 212.5 |
| Sanger 2-10kg | 25 | 3.5 | 87.5 | 40 | 3.8 | 152 | 30 | 5.0 | 150.0 |
| Novac 2-10kg | 5 | 3.5 | 17.5 | 15 | 3.8 | 57 | 5 | 4.5 | 22.5 |
| Pike | 2 | 7.0 | 14.0 | 1 | 7.0 | 7 | 1.5 | 7.5 | 11.25 |
| Sheat fish | 1 | 9.0 | 9.0 | 1 | 9.0 | 9 | 1.2 | 9.5 | 11.4 |
| Crucian | 8 | 2.8 | 22.4 | 10 | 3.0 | 30 | 12 | 3.5 | 42.0 |
| Total | 86 | X | 425.4 | 108 | X | 543 | 79.7 | X | 479.65 |
| 2. Frozen fish | | | | | | | | | |
| Carp 1-2 kg | 20 | 5.5 | 110.0 | 20 | 5.7 | 114 | 15 | 6.5 | 97.5 |
| Carp 2-10kg | 0 | 7.7 | 0 | 5 | 8.5 | 42.5 | 25 | 9.0 | 225.0 |
| Sanger 2-10kg | 25 | 3.7 | 92.5 | 35 | 4.0 | 140.0 | 30 | 5.5 | 165.0 |
| Novac 2-10kg | 10 | 3.7 | 37.0 | 20 | 4.0 | 80.0 | 20 | 5.0 | 100.0 |
| Pike | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 8.0 | 12.0 |
| Sheat fish | 0 | 0 | 0 | 1 | 9.5 | 9.5 | 0.8 | 9.8 | 7.84 |
| Crucian | 2 | 3 | 6.0 | 5 | 3.5 | 17.5 | 3 | 3.7 | 11.1 |
| Total | 57 | X | 245.5 | 86 | X | 403.5 | 95.3 | X | 618.44 |
| Total goods | 143 | X | 670.9 | 194 | X | 946.5 | 175 | X | 1098.09 |
| 3. By products | | | | | | | | | |
| Summer carp II | 18 | 5.5 | 99.0 | 10 | 5.7 | 57 | 25 | 6.0 | 150 |
| Summer sanger II | 25 | 4.0 | 100.0 | 15 | 4.1 | 61.5 | 30 | 4.3 | 129 |
| Summer Novac II | 17 | 4.0 | 68.0 | 15 | 4.1 | 61.5 | 20 | 4.3 | 86 |
| Total | 60 | X | 267 | 40 | X | 180 | 75 | X | 365 |

Source: own calculations based on case studies

Of course, such a situation was also caused by the average selling price per unit of product. In frozen fish, the price was higher than that of fresh fish. For instance, while the average selling price per unit of product for fresh fish ranged from 5.02 euro / kg in 2007 to 6.02 euro / kg in 2008, the price of frozen fish was 4.69 Euro / kg in 2007 and 6.49 lei / kg in 2008.

Moreover, changing the structure of production in 2008 calls into question the possibility of consolidation and expansion of freezing activity involving space and adequate facilities, both consuming much energy and other specific inputs. Such a situation may

create problems in terms of product profitability, as long as the top level of sales price per unit of product (compared with fresh fish) is not higher for fresh fish to frozen fish. As for the factorial analysis carried out, several significant conclusions can be drawn, namely:

1. variation in turnover is due to the influence of two factors with direct action: the quantity of product delivered fresh and average selling price per unit of product.
2. variation in turnover is due to the influence of two factors with direct action: the structure of commodity production and the selling price per unit of product.

Table 2 Commodity output by product category and turnover expressed in unit production costs and average sale prices to farm in Tulcea County

| Item | Symbol | Years | | % |
|---|---------------|--------|--------|-----|
| | | 2007 | 2008 | |
| CARP | | | | |
| Commodity output (t) | Qm | 66000 | 70000 | 106 |
| Turnover expressed in costs (thou lei) | $\Sigma Qm*c$ | 365772 | 643300 | 176 |
| Turnover expressed in prices (thou lei) | $\Sigma Qm*p$ | 448800 | 560000 | 125 |
| SANGER | | | | |
| Commodity output (t) | Qm | 75000 | 60000 | 80 |
| Turnover expressed in costs (thou lei) | $\Sigma Qm*c$ | 262500 | 355200 | 135 |
| Turnover expressed in prices (thou lei) | $\Sigma Qm*p$ | 285000 | 300000 | 105 |
| NOVAC | | | | |
| Commodity output (t) | Qm | 35000 | 25000 | 71 |
| Turnover expressed in costs (thou lei) | $\Sigma Qm*c$ | 122500 | 148000 | 121 |
| Turnover expressed in prices (thou lei) | $\Sigma Qm*p$ | 133000 | 120000 | 90 |
| PIKE | | | | |
| Commodity output (t) | Qm | 1000 | 3000 | 300 |
| Turnover expressed in costs (thou lei) | $\Sigma Qm*c$ | 2700 | 10950 | 406 |
| Turnover expressed in prices (thou lei) | $\Sigma Qm*p$ | 7000 | 22500 | 321 |
| SHEAT FISH | | | | |
| Commodity output (t) | Qm | 2000 | 2000 | 100 |
| Turnover expressed in costs (thou lei) | $\Sigma Qm*c$ | 5400 | 7300 | 135 |
| Turnover expressed in prices (thou lei) | $\Sigma Qm*p$ | 18000 | 19400 | 108 |
| CRUCIAN | | | | |
| Commodity output (t) | Qm | 15000 | 15000 | 100 |
| Turnover expressed in costs (thou lei) | $\Sigma Qm*c$ | 40500 | 54750 | 135 |
| Turnover expressed in prices (thou lei) | $\Sigma Qm*p$ | 45000 | 55500 | 123 |

Source: own calculations based on case studies

CONCLUSIONS

Analyzing factorial influences, according to previous determinations, we note the following:

1. Commodity stocks lower production by 10% in 2008 over 2007 had the effect of reducing profits with 789.428 lei. As demand for such products continues to grow, this situation is not beneficial for economic and financial position of the company. Such a situation may be caused by internal factors or external factors of the company.
2. Changes in fish selling prices, increasing by 27.5% of them in 2008 compared with 2007, resulted in an increase in total profits of the enterprise with 28,518.363 lei. The change in prices was caused by high demand and low supply, but also by the increased share of the fish products with higher market prices.
3. Both the commodity output and sale prices per unit have contributed as turnover to an increased overall profit of the company by 20,625.936 lei.

4. Commodity output structure, as a factor to influence indirectly, contributed to higher profit of fish farms with 17,112.021 lei. This means that compared with 2007, in 2008 the structure of production has improved in terms of species that bring high returns with less expenditure. The extension of such fish species, and increasing supply will improve the financial situation of the company.
5. Selling prices were higher than the previous year in most fish products, their effect is increased profits with 162,794.063 lei. This may be due to the company effort to improve production structure and quality, as well as of temporary external factors.
6. Unit production costs have exerted a negative influence on profit farms in the amount of 480,060.027 lei. The situation was caused by cost overruns in fish species that have a majority share in total sales. Influence of change in unit costs can be explained according to components (material expenses, personnel expenses, liquidation, other charges, bank interest expense, taxes or fees)

and their specific factors (specific consumption of material, labor productivity, supply prices, etc.). Increased costs should not be seen as an adverse action. It is justified only when the additional consumption of resources is reflected in improved product quality and increased selling prices, the effect obtained is greater than the effort.

7. Influences the structure of commodity output (17,112.021 million), the average selling price (162,794.063 million) and cost per unit of product (-480060.027 billion)

contributed to decrease farm income with 300,153.943 lei.

8. In conclusion the factors that negatively influenced the change in income have a decisive role in relation to factors that favored greater profits, fish farm activities in 2008 ending with a loss of about 354,000 lei.

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ROMANIA'S FOREIGN TRADE WITH MEAT AND DERIVATIVES

Petruța Antoneta TUREK RAHOVEANU

The Research Institute for Agrarian Economics and Rural Development
61 Mărăști Bvd, Sector 1, Bucharest, Romania, cod 011464, Phone/Fax +40-21-224.27.95, Email:
turekanca@yahoo.com

Key words: *foreign trade, meat and derivatives, export / import flows*

Abstract:

Exchange forms in foreign trade are affected by many factors, some of them very different from those of internal trade. Export reimbursement is the difference between world market and EU prices. Qualitative structure at national level in the chain of live animals and meat (meat derivatives), is assessed through the analysis by investigating the chain of these products in a three-dimensional form: quantity-value price. Live animals and meat export/import flows in Romania, especially after the accession, tend to increase quality in ways that are differentiated by the level of each stage of the chain, which is in fact the degree of recovery of live animals and meat.

INTRODUCTION

A quality issue with great repercussions in the channel of live animals and meat (meat derivatives) is the analysis of these products in a three-dimensional form: quantity-value - price.

Live animal and meat export / import flows in Romania tend to increase quality especially after the accession, in different ways for each channel stage, which is in fact the degree of recovery of live animals and meat.

MATERIAL AND METHOD

Table 1 shows the import / export of live animals and meat (meat derivatives) for the first 10 months of 2008 at national level. The following interpretations can be made for indicators of quantity, value (in euros) and percentage:

– for *live animals*, imports / exports of cattle, swine, sheep and poultry (chicken and ducks) were high. Quantitatively, in cattle and sheep exports exceed imports, but in swine and poultry imports prevail. When comparing the value of total imports / exports, the largest are swine imports (72.45%) and cattle and sheep exports (52.25% and 47.28%). The comparison between the prices of import / export, in thousand euros / ton shows 1.93-fold higher import prices compared to export

ones in cattle and 1.73 times in birds, but for sheep export price is 1.19 times higher than import one. In swine there is only import, competitiveness was much lower, which is why it was not possible to export;

– *meat and animal derivatives*, the more differentiated products structure generated multiple interpretations for the activities of import / export. Thus:

– a) in fresh beef exported quantities prevail and in frozen meat imports prevail. For these kinds of beef (fresh and frozen), import prices are higher than export ones;

– b) the quantities imported pork are 604.26 times higher than those exported. These imports of pork account for 63.30% of total imports in terms of value. However, Romania's exported pork prices were higher than import prices (by 9.52%);

– c) for offal, quantities exported were much higher than imports (17.11 times), while meat and poultry offal imports exceeded exports (by 13.46 times). As for prices, offal import price is much higher than export price, and in poultry meat and offal export prices are higher than import ones;

– d) for the sorts of bacon, pork and poultry fat, imported quantities are much higher and the price level is also higher. For sausages and small sausages imports are higher, and prices are close to the same level (of 3.02 thousand

euros per ton for import compared to 3.04 thousand euros per ton for export).

In Table 2 are given the characteristics and guidelines for pork and poultry in terms of marketing.

Table 1. Romania's foreign trade with live animals and meat derivatives (10 months of 2008)

| Live animals and meat derivatives | IMPORT | | | | EXPORT | | | |
|--|-------------------|-----------|---|-----------------------|-------------------|-----------|---|-------------------------|
| | Quantities (tons) | Value | | Price (thou euro/ton) | Quantities (tons) | Value | | Price (thou euro / ton) |
| | | Thou euro | % of the total (live animals / meat, derivatives) | | | Thou euro | % of the total (live animals / meat, derivatives) | |
| LIVE ANIMALS (TOTAL IMPORTS = 77,048 thou euro; TOTAL EXPORTS = 138,469 million euro) | | | | | | | | |
| Cattle | 1596 | 6199 | 8.05 | 3.88 | 35993 | 72354 | 52.25 | 2.01 |
| Swine | 33581 | 55825 | 72.45 | 1.66 | - | - | - | - |
| Sheep | 55 | 89 | 0.12 | 1.62 | 33951 | 65463 | 47.28 | 1.93 |
| Chicken, ducks | 2380 | 14935 | 19.38 | 6.28 | 60 | 652 | 0.47 | 10.87 |
| MEAT AND MEAT DERIVATIVES (TOTAL IMPORTS = 596,907thou euro; TOTAL EXPORTS = 48,674thou euro) | | | | | | | | |
| Beef (fresh) | 1686 | 5734 | 0.96 | 3.40 | 2389 | 5216 | 10.72 | 2.18 |
| Beef (frozen) | 9600 | 24456 | 4.10 | 2.55 | 389 | 835 | 1.72 | 2.15 |
| Pork | 199406 | 377824 | 63.30 | 1.89 | 330 | 683 | 1.40 | 2.07 |
| Offal | 16474 | 14850 | 2.49 | 0.90 | 282 | 157 | 0.32 | 0.56 |
| Meat, poultry offal | 95440 | 123771 | 20.74 | 1.30 | 7,090 | 11550 | 23.73 | 1.63 |
| Bacon, pork fat, poultry | 23492 | 21207 | 3.55 | 0.90 | 677 | 195 | 0.40 | 0.29 |
| Sausages, small sausages | 3178 | 9601 | 1.61 | 3.02 | 489 | 1489 | 3.06 | 3.04 |
| Other derivatives | 7414 | 19464 | 3.26 | 2.63 | 7,083 | 28549 | 58.65 | 4.03 |

Source: processed by ARC, Bucharest, 2009

Table 2. Features of marketing activities for pork and poultry

| Features | Pork | Poultry |
|---|---|--|
| Marketing Vs. Subsistence | Especially in households that buy a few pigs for fattening. Half of the pork goes through the commercial marketing channel, the rest is consumed locally or in households | Ten private companies supply 2 / 3 of the formal poultry market; substantial small scale production for household use |
| Marketing challenges and opportunities | Restructuring of processors is still at an early stage, a significant under-used capacity; some large producers have good technical performance; only 14 units currently meet EU standards (as of 2007 when 117 units were operative); poor quality inputs; poor genetic quality of breeding stock; low quality fodder and bad animal health; relatively unskilled and untrained manpower. | Many manufacturers have their own equipment for the production of combined forage; poor quality of inputs; poor quality of genetic material; poor quality fodder; lack of qualification and training of workers in processing plants; only 10 processing units meet EU standards (out of the 19 units that were expected to operate in 2007) |
| Constraints of marketing system development | Insufficient information on the marketing grading / standards and the safety of food and necessary equipment; lower quality access roads; no running water supply (affecting processors); marketing institutions in the sector are still underdeveloped; the government's role in providing public goods is not fully understood; barriers to improved rural financial intermediation and risk management field | |

Live animal and meat export / import flows in Romania

Data presented in Tables 3 and 4 point out different trends of recovery, considering the value (in euro). Thus:

– *for export*, analysis of 2006 and 2007 shows an increase in the whole range of live animals and meat products. Basis of comparison in lei indicate different directions during 2002-2007. First there is an increase in total exports (from 45,905 million lei in 2002 to 98,579 million lei in 2007, the increase being 114.74%). For live animals, meat and edible offal exports growth is different in 2007 compared to 2002, namely for live animals growth is only 67.500% and meat and edible offal of 291.304%;

– *for imports*, for the entire country: an expansion of imports, with an increase in imports of live animals (regarded as a stagnation in percentage levels), meat and meat products increased in absolute figures (by 60 million euros) and a slight decrease in relative figures (by 0.14%). With a basis of comparison in lei, when discussing the dynamics 2002-2007, there are massive national imports, which is reflected both on live animals and meat. Thus: if live animals increase by only 19.69%, meat and offal increase is 191.29% (i.e. 1.9 times).

In this context, investigation is necessary on processed meat products channel in terms of contribution of Romanian meat companies to exports. Table 5 presents the situation in

2006, expressed in thousand lei, with the size of these enterprises, which are all in the majority private sector (from 1.9 employees to 250 employees and over). You can find the following:

– out of the total export value of 94.796 thousand lei, there is a maximum contribution from the largest companies, 39.59% respectively, in large enterprises (250 employees and over). This indicator decreases gradually to only 8.37% for micro-enterprises (1-9 employees);

– regarding exports, expressed by reporting to 1,000 lei turnover, which for these meat companies is 16 lei at national level, the levels are reversed. Thus, micro-enterprises (1-9 employees) have the highest level of this indicator (206.25%), and large enterprises have 81.25%, which places them below the national average;

– exports per employee, compared to the average of 2789 lei / person show a rate similar to the previous indicator. Micro-enterprises have a level of 185.55% and large enterprises 87.16%. Within this framework of analysis small (10-19 employees) companies have the lowest levels of exports per employee (65.15%), while in medium-sized companies (20-49 employees) the level is higher (reaching 139.95% versus the national average).

Table 3. Romania's exports (FOB) and imports (CIF) of live animals and meat (by sections, according to CSCI, REV. 4)

| Structure of export / import products | Exports | | | | Imports | | | |
|---------------------------------------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| | 2006 | | 2007 | | 2006 | | 2007 | |
| | mill euro | % | mill euro | % | mill euro | % | mill euro | % |
| Country TOTAL | 25850 | 100.0 | 29549 | 100.0 | 40746 | 100.0 | 51322 | 100.0 |
| of which: | | | | | | | | |
| - food and live animals | 563 | 2.18 | 659 | 2.23 | 1833 | 4.50 | 2664 | 5.19 |
| - live animals | (153) | (0.59) | (181) | (0.61) | (37) | (0.09) | (47) | (0.09) |
| - meat and meat preparations | (37) | (0.14) | (54) | (0.18) | (511) | (1.25) | (571) | (1.11) |

Data processed by the Statistical Yearbook of Romania, INS, 2008.

Table 4. Romania's foreign trade with live animals and meat (according to NC combined export list)

| Export / import products | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | |
|----------------------------------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|---------|
| | mill lei | % | mill lei | % | mill lei | % | mill lei | % | mill lei | % | mill lei | % |
| TOTAL EXPORTS | | | | | | | | | | | | |
| Country TOTAL | 45905 | 100.0 | 58525 | 100.0 | 76794 | 100.0 | 80663 | 100.0 | 91472 | 100.0 | 98579 | 100.0 |
| Live animals and animal products | 481 | 1.05 | 711 | 1.21 | 815 | 1.06 | 707 | 0.88 | 746 | 0.81 | 839 | 0.85 |
| Live animals | (360) | (0.78) | (512) | (0.87) | (573) | (0.75) | (513) | (0.65) | (542) | (0.59) | (603) | (0.611) |
| Meat and offal | (23) | (0.05) | (47) | (0.08) | (73) | (0.09) | (66) | (0.08) | (56) | (0.06) | (90) | (0.09) |
| TOTAL IMPORTS | | | | | | | | | | | | |
| Country TOTAL | 59114 | 100.0 | 79735 | 100.0 | 106457 | 100.0 | 117946 | 100.0 | 144087 | 100.0 | 171319 | 100.0 |
| Live animals and animal products | 975 | 1.65 | 985 | 1.24 | 1577 | 1.48 | 2393 | 2.03 | 2500 | 1.74 | 2900 | 1.69 |
| Live animals | (132) | (0.22) | (73) | (0.09) | (96) | (0.09) | (128) | (0.11) | (133) | (0.09) | (158) | (0.09) |
| Meat and offal | (632) | (1.07) | (624) | (0.78) | (1120) | (1.05) | (1816) | (1.54) | (1838) | (1.27) | (1841) | (1.07) |

Data processed by the Statistical Yearbook of Romania, INS, 2008.

Table 5. Romania's export indicators and meat company size (all in private sector, 2006)

| Export indicator | UM | TOTAL companies | Company size by number of employees (%) | | | | |
|------------------------|------------|-----------------|---|-----------------|-----------------|------------------|------------------------|
| | | | 0-9 employees | 10-19 employees | 20-49 employees | 50-249 employees | 250 employees and over |
| Total direct exports | thou lei | 100.0/94796 | 8.37 | 3.91 | 16.71 | 31.42 | 39.59 |
| By 1000 lei turnover | Lei | 100.0/16 | 206.25 | 62.50 | 143.75 | 100.0 | 81.25 |
| - average per employee | lei/person | 100.0/2789 | 185.55 | 65.15 | 139.08 | 97.95 | 87.16 |

Source: Own processing of database: results and performance of enterprises in industry and constructions, NIS, 2008

CONCLUSIONS

Considering the presented results, real knowledge is required for the import / export channel, both quantitatively (the quantities and degree of processing of meat products) and qualitatively (value and prices for these products).

Hence the need to solve marketing activities within the structure of import / export relationships of meat and meat product channel.

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INVESTMENT IN ROMANIA'S MILK PROCESSING SECTOR

Petruța Antoneta TUREK RAHOVEANU

The Research Institute for Agrarian Economics and Rural Development
61 Mărăști Bv. , Sector 1, Bucharest, Romania, cod 011464, Phone/Fax +40-21-224.27.95, Email:
turekanca@yahoo.com

Key words: investment, chain, processing, investment indicators

Abstract:

Investments and structural form of allocation in processing activities of the milk chain have quantitative and qualitative aspects in the Romanian milk production and processing. Knowing the dairy chain requires analytical knowledge of investment indicators in two respects: investment levels according to the production size of dairy enterprises, supplemented with the comparative form, reporting these investments to key economic and financial indicators.

INTRODUCTION

For Romania, the processing of milk is still linked to the existence of old unmodernized processing capacity and to the pressure of new competitors. By the beginning of the privatization process, each plant produced full range of dairy products, to use all the milk delivered and provide a full range of products to the local community.

✓ industrial processing of raw milk is a main link in the channel, where milk is processed into dairy derivatives. Those operating in this stage are private and joint companies: in 2007 there was a total of 671 dairy companies, but over 2 / 3 were micro-companies (0-9 employees), 11.63% small companies (10-49 employees), 11.48 % medium companies (50-249 employees) and only 2.53% large companies (over 250 employees);

✓ in 2008, there were: 35 units certified for intra-Community trade, 42 units complying with Community requirements, authorized to receive and process the milk without separation, 2 companies under the Community Structural requirements authorized to receive and process the milk on separate lines and only 185 units approved for a transitional period until 31.12.2009.

MATERIAL AND METHOD

To know dairy channel, analytical knowledge of investment indicators is required in two respects: investment levels according to production capacity of dairy companies, supplemented with the comparative form, by reporting these investments to the economic and financial indicators.

RESULTS AND DISCUSSIONS

Table 1 shows investment indicators, which in 2007 are presented together with the size of processing companies, as well as in absolute and relative figures together with the main economic performance indicators. The following aspects can be noticed:

✓ out of the country's 498.452 million lei total investment , the highest weight is for medium-sized companies, followed by large companies with 24.57%;

✓ by comparing the total investment to the production year, we get a value of 189 lei / 1000 production year, a maximum level of 241.27% in micro-companies, which then decreases reaching 44. 44% in large enterprises;

✓ by comparing Investment to turnover, which nationally is 6.30 lei lei investiții/1000 lei turnover, were registered at a minimum level is found in micro-companies (only 44.13%), which increases successively up to large enterprises (246, % 33);

✓ reporting the amount of investment to gross result for the year, we get a national level of only 0.41 lei investment/1000 lei gross result. Significantly, micro and medium enterprises were registered losses, which is why this indicator values are negative;

✓ very low direct exports makes investment/1000 lei direct exports a very low indicator too. However, medium companies reach a level of 137.90% compared to the

country level of 0.11 lei investiții/1000 lei exports;

✓ average investment per employee, which nationally is 28,847 lei per person, highlights the largest weight of the medium sized companies (44,902 lei / person which is 155.65% versus the country average), and lowest in large enterprises (17,073 lei per person, which is 59.18% versus the country average).

Table 1. Economic indicators regarding the investments of Romanian dairy companies (2007)

| Indicators | UM | out of which | | | | | |
|---|------------|-----------------|---------------|-----------------|-----------------|------------------|------------------------|
| | | Total companies | 0-9 employees | 10-19 employees | 20-49 employees | 50-249 employees | 250 employees and over |
| Total investments | thou lei | 498452 | 44969 | 26894 | 62418 | 241708 | 122463 |
| | % | 100.0 | 9.02 | 5.40 | 12.52 | 48.49 | 24.57 |
| Out of which: – to 1000 lei production of the year | Lei | 189 | 456 | 257 | 268 | 328 | 84 |
| | % | 100.0 | 241.27 | 135.98 | 141.80 | 173.54 | 44.44 |
| – to 1000 lei turnover | Lei | 6.30 | 2.78 | 4.39 | 4.15 | 3.06 | 15.54 |
| | % | 100.0 | 44.13 | 69.55 | 66.84 | 48.46 | 246.33 |
| – to 1000 lei added value | lei | 892 | 2360 | 1479 | 1612 | 2115 | 332 |
| | % | 100.0 | 264.57 | 165.81 | 181.72 | 237.11 | 37.22 |
| – to 1000 lei raw result of the production year | Lei | 0.41 | -0.06 | 2.29 | 0.16 | -0.13 | 1.38 |
| | % | 100.0 | -15.67 | 552.49 | 37.77 | -31.30 | 333.97 |
| – to 1000 lei direct exports | Lei | 0.11 | 0 | 0.01 | 0.08 | 0.15 | 0.10 |
| | % | 100.0 | 0 | 9.51 | 78.19 | 137.90 | 92.89 |
| – average by employee | Lei/person | 28847 | 33812 | 24317 | 27293 | 44902 | 17073 |
| | % | 100.0 | 117.2 | 84.30 | 94.61 | 155.65 | 59.18 |

Source: Own processing of Results and performance of dairy and construction companies, NSI, 2008

Analytical knowledge of investment and dimensional structure of firms emphasize the potential for integration and competitiveness in the dairy channel. In terms of investment efficiency, the following can be mentioned: enterprises with 10-19 employees, who are the most effective, with the lowest level of investment; medium-sized companies with 50-249 employees, with highest quantum of investment (48.49% of country total), with the highest investment per employee (155.65% compared to the country level), but with gross negative results; large companies with 250 employees and over, with the largest investment and the highest gross result for the year.

CONCLUSIONS

To industrialize milk, a number of conditions should be met, so that milk is not influenced by factors existing in outside environment. Complete industrial solutions for most lines of milk, yogurt, cheese, which includes: tanks, cooling units, reception and milk pasteurization, separation-cleaners, homogenizers, deodorizers, processing tanks and storage, equipment for the production lines for strong, semi-strong and soft cheese, as well as the production of yogurt and butter, CIP units, aseptic processing equipment, hygiene equipment, packaging machines, air compressors, steam generators, water coolers etc

Without farmers associating and investing in equipment like mechanical milkmaid, no progress is possible in this area. If smaller units, with local sales or zonal, have big problems, milk processing plants are an excellent investment opportunity.

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THE STRUCTURE OF PRODUCTION IN EU27 AGRICULTURE - STRUCTURAL GAPS IN ROMANIAN AGRICULTURE

Radu VOICU¹, Adrian TUREK RAHOVEANU², Raluca Andreea ION³

¹The Bucharest Academy of Economic Studies, 1, PiaTa Romană Street, 010374, Bucharest, Romania, phone/fax +4021 319.19.00, radu.voicu@eam.ase.ro

²Institute of Research in Agrarian Economics and Rural Development, 61, Mărăști Blvd., 011464, Bucharest, Romania, phone/fax +4021 318.16.86, turek.adrian@iceadr.ro

³The Bucharest Academy of Economic Studies, 1, Piata Romană Street, 010374, Bucharest, Romania, phone/fax +4021 319.19.00, raluca.ion@eam.ase.ro

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Abstract

Characterization of the structure of production in the EU, to the existence of the 27 member countries, sharing an area of approx. 4 million km², is a complex process. An overall assessment on the structure of EU agriculture production 27 shows evidence that it contains branches and cultures, in greater or lesser extent, that are found in all countries. Differences between countries have multiple determinations. It is recognized the role of climate and soil conditions and whether they meet the requirements of different industries and cultures. It is recognized also that they interfere with restrictive, prohibiting so, the practice of crops in some areas. Soil and climate conditions, with few exceptions, such as removal of drought with irrigation, correcting acid soil reaction or providing nutrients can not be corrected to make them conducive to certain cultures. Naturally, there are areas of favourability in each country for different crops. Overall, agricultural area of a country is suitable for certain uses and these are favourable for different cultures. As a result, quite rightly, it is estimated that agricultural production in one country can not be outsourced from one area or another as it happens with the industrial

INTRODUCTION

European agriculture, as all over the world, includes: crop production and livestock. The differences between it and other geographical areas, in the context of this study, are found in the types of branches of plant species and animals grown.

The differences between agriculture of EU27 countries are found in terms of expansion known by different industries and cultures, rather than the kind of branches practiced, as is found in the following.

Different areas of favourability are related to the level of production (productivity) per hectare, with comparative advantage (it is assumed that where conditions are better, they amplify the effects of human and physical effort, leading to higher productivity and lower production cost, to what is obtained in areas where conditions are not as good), the differential rent I, after fertility. Therefore, the location must meet crop area of favourability,

extending crops beyond it generates loss of positive effects played above.

Different production structures and, particularly, development of agriculture of various countries generate differences on synthetic results obtained by them and their contribution to economic growth. Such a thing must be a strong reason for reflection and, in particular, for action for all those directly connected to the situation of Romanian agriculture.

MATERIAL AND METHOD

For this work to appeal to documentation and data obtained from the European statistics. Likewise, the comparison method was used to capture the differences between the production structures of different countries and differences existing in some respects, between Romania and EU (reporting being done in some countries and, obviously, the EU average). Along with analysis and comparison to appeal and consolidated, taking into account the volume of

information, diversity of branches of production with the variety of natural and economic conditions of the 27 EU countries

RESULTS AND DISCUSSION

Plant production

Branch prevalent in EU agriculture in crop production are **cereals**. On average, they hold almost 31% of agricultural area used. For different reasons, there are countries where the share of cereals is higher and, of course, the other where is lower. Primarily, cases are determined by the area held by grain, but also the structure of how to use the land for the purposes of its share of incumbent categories of use: pastures and natural meadows, vineyards and orchards. Thus, in the case of Romania, where the share of cereals the land area was 64.9%, in 2006, due to areas held by the above categories use their share in agricultural land use was only 35.9%. It seems more relevant the share of cereals in arable land, when it is high shows that they extend to the detriment of other branches, by printing a highly grain farming. However, a developed agriculture requires a diversified production structure, taking into account the specific conditions, paying attention to other branches; their role is recognized in ensuring a balanced diet for the population and raw materials for various industries for processing and to meet other needs of the economy.

Romania has known since 1989 important increases in the share of cereals in the arable area. Our country is, by area, the fourth country in the EU grain growing, although the agricultural area used by 6 ranks. The situation is caused by the fact that individual farms are predominant and they produce grain for family consumption and for use as livestock feed.

There are other countries where the share of cereals in the agricultural area used it is above the European average, while others have weights lower than average. Higher share of cereals held Denmark - 55.1% (straw cereals grown, cool climate in summer does not allow cultivation of plants that need more heat to make the annual sum of temperatures necessary to reach their maturity), Poland - 52.5%.

Corn crop doesn't enjoy the same extension that meets the wheat, important areas of this culture are in countries such as Romania, France, Italy, Hungary and, to a relatively large distance, Germany, Bulgaria, Spain and Poland. The differences arise from the existence, in some countries, of the less favourable conditions of culture, but also of tradition or of requests to the corn from the fields of the growing economies.

Other cereal crops, especially barley and rye, also have different representations per countries, but less extensive. Rice is grown in a limited number of countries.

Branch of oil seed crops is found mainly in two crops: rapeseed and sunflower, their share per countries being different. In most countries the prevailing culture is rape, except Romania, Bulgaria, Hungary and Italy. Climatic reasons or because the sunflower is a rapacious culture in the use of soil nutrients, or that consuming olive oil or imported, this culture is extended only in a few countries, including Romania (the biggest area planted). Share of oil country cultures is usually below 10%. Above this level of the ratio there are found: Bulgaria (14.9%), Slovakia (13.0%), Hungary (12.6%), and Czech (12.3%). With a share of 9.8%, Romania is in the first category of countries.

Legumes do not have a significant share in the agricultural area used, the European average being 0.9%. Over the medium lies there are: Lithuania (1.5%), UK (1.4%), Austria (1.3%), Spain (1.3%), and France (1%). For Romania, the share of legumes is 0.5%.

Fresh vegetables have also a low weight. Large growing vegetables are: Italy, France, Poland, United Kingdom, Hungary, and the Netherlands.

Romania and other countries (probably they did not report data or because of conditions they cultivate small areas) do not have areas held by vegetable crops. Our country, as it is known, grows vegetables, the area they occupied in 2006 was 280.1 thousand hectares. This area includes, however, the areas of kitchen gardens, glasshouses and greenhouses, crops and successive interleaved, so it is impossible to calculate its share in agricultural land use. Although we cultivate a significant area, still we import large quantities of vegetables.

Green fodder accounts in EU 27 for 3.9% of agricultural area used, more than 7 million hectares cultivated.

According to available data, green fodder ranks third in production structure, after cereals and oilseeds. Share of this branch reached in some cases to 15%. Of course, here comes the link between industry and the development of livestock in each country. With a livestock rising mostly traditional, Romania cultivates feed on an area accounting for 1.3% of agricultural area used. In providing forage base involved, of course, pastures and natural grassland, but also secondary production from field crops (fodder containing low nutrient). Often individual farms grow cereal straw to get forage, but these are characterized by a low nutrient content. It is necessary to extend and improve the structure of forage crops, and to increase the number of those rich in nutrients and digestible proteins. Extension of forage crops are related to livestock development.

Sugar beet (included in the Romanian statistics in roots branch) is grown in the EU27 in a proportion of only 1% of agricultural area used. By country, areas held by the beet are relatively low. The largest proportion (6%) is met in Belgium. Significant levels of surface cultivated with beet are found in countries such as France (379 thousand ha), Germany (358 thousand ha), Poland (262 thousand ha), United Kingdom (131 thousand ha), Italy (91 thousand ha), Spain (86 thousand ha), Netherlands (86 thousand ha). Romania cultivated in 2006, 40 thousand hectares.

Potatoes (included in the Romanian statistics in roots branch) have, at European level, a slightly larger share (1.2%) compared to beet. All EU countries grow, in larger or smaller areas, potatoes. For Romania, the share held by potato (2%) is higher than the European average. The degree of extension of this culture is determined by multiple forms in which potatoes are found in food consumption by the people, but also other economic uses.

Cotton, tobacco and hops have less significant representation in the structure of production. Their practice is influenced by climate (cotton) and the level of industrial development cigarettes (tobacco) and the production of beer (hops). In the Czech Republic and Germany

there are the largest areas cultivated with hops. These countries are major producers and consumers of beer. The shares of the crop in the agricultural area used are 5% and 18%.

Viticulture knows a significant expansion in several countries. Here as well, the climate shows its role fully. Where summers are warm and there are other conditions, the vine has significant share in the agricultural area under cultivation: Italy (5.3%), France (2.6%), Cyprus (5.4%), Greece (2, 3%), Portugal (5.9%), and Slovenia (3.3%). Existing data show that France (842 thousand ha) and Italy (786 thousand ha) have occupied the largest area under vines. For Romania, the vineyards have used 1.3% of agricultural area; its trend is decreasing after 1989.

Fruit Tree is a wider spread area than vines. Almost all countries grow trees. The areas are, however, very different. Differences are found in the structure of the species. The apple is the species prevalent in each country. Italy and France have the largest fruit surfaces. In Romania, where there is a tendency of reducing the area with trees, the area was in 2006, of 213.4 thousand ha.

Citrus fruits are found in structures of production of agriculture in a few countries: Italy (173 thousand ha), Greece (52 thousand ha), Portugal (25 thousand ha), Cyprus (5000 thousand ha) and France (2000 thousand ha). Spain doesn't appear with area occupied by citrus.

Flowers and ornamental plants - a small number of countries appear in areas occupied by this branch. Its share in agricultural land use is not significant. Romania is among countries that do not appear in areas held by flowers and ornamental plants.

Livestock

In animal husbandry situation presents a higher degree of homogeneity because it increases the same species, the main ones being: livestock (cattle), swine, sheep and poultry. The explanation is that among the determinants of production structure the importance of natural conditions decreases, which influences the production structure of plant branch.

Livestock (cattle) are found in all countries. Herds are different per countries. Countries

with the largest agricultural area used for growing have many animals and the density of animals at 100 meters is the highest. Thus, France is the first of their surface and the livestock.

Further, the hierarchy changes, Germany and the UK stood better in this regard: places 2 and 3 respectively (3 and 4 respectively by area). Spain ranks 4, Italy ranks 5, and Ireland ranks 6 (10 by area). Romania ranks 7 by area, but it ranks 9 per number of animals. The "fall" is not so great, in reality; however, the actual difference between Romania and countries that have close agricultural areas - Italy and Poland - is 3.758 million head, respectively 2.587 million head. At the opposite pole there are countries that have reduced agricultural area, compared to those mentioned above, but large livestock (Belgium has an agricultural area of more than 10 times lower than Romania, but it has almost the same number of animals - 2.573 million head; Netherlands grown more animals than Romania, but has an agricultural area of 7.5 times less).

The density of animals in 100 hectares of agricultural land is very different. High levels of it, far above the European average (48.1 heads), meet in: Netherlands (201 heads), Malta (190 heads), Belgium (186.2 heads), Luxembourg (149.6 heads), Ireland (138.5 heads). With a density of 20 head on 100 ha land used, Romania is one of the last places (24) in the EU. Lower densities were only in Bulgaria (11.8 heads), Hungary (12.1 heads), Greece (17.2 heads).

Romania has a low concentration of the herd of cattle on farms. Compared to a European average of 24 heads, Romania has only 2.2 heads. It is the lowest concentration of the bovine met in the EU27.

Pigs are a species found, naturally, in all EU countries, where there are no religious restrictions. Large countries have the largest number of pigs.

Germany is situated in the first place, with 27.113 million heads, or 16.0% from the EU 27. Very close is Spain, 16.3%, followed by Poland, 11% of pigs. France and, in particular, Italy and the UK grow less effectives compared with the countries mentioned above. Among the countries with smaller area is remarkable

Denmark 13170 thousand heads, meaning 8.2% from the EU. Netherlands and Belgium are found in leading positions.

With 6.565 million head, Romania has 4.1% of the number of pigs in EU-27, being at 8 place. Compared to countries that use an agricultural area closed to Romania, it raises fewer pigs, the differences from Italy, Poland and Germany are, in order: 2.708 thousand heads, 11 965 thousand heads and, respectively, 20.548 thousand heads.

In the year 2007, there is a general tendency to reduce the number of pigs, including in Romania, although its potential as arable land is much higher. Only 9 countries have registered increases of effective. The overall EU-27 reduction was 1.2%. Romania not only has a less effective (it grows as many pigs as Belgium) but is characterized also by a low concentration of herds). On average, in 2005, there were 2.8 heads on a farm, which is specific to subsistence farms (65.4% of all heads of swine farms grew 1.2); while the EU27 average was 40.5 heads. From this point of view, Romania was the last of them. In this approach there are included: Bulgaria (4.9 heads), Lithuania (7.9 heads), Latvia (11.0 heads), Hungary (12.2 heads). The highest degree of concentration is found in Ireland (1976.6 heads) and Denmark (1500.5 heads).

Sheep and goats are the species to which Romania is presented better, holding, in 2007, 4th in the first species and 5th in the second species, among EU-27 countries.

The sheep are concentrated in 12 countries, which have each more than 1 million heads. Other countries have herds of sheep and goats less important.

The most important are, by effective, the United Kingdom (23.723 million head), Spain (22.194 million head) - the two countries, holding nearly half (47.9%) of the sheep of the EU-27, being remote from other countries, following the Greece with 8.984 million head, after coming: Romania (8.469 million head), France (8.285 million head) and Italy (8.237 million head). It is possible for some of these countries to have a tradition of very important. Great upward of cattle and swine have, here, modest places.

The phenomenon of decrease in number in the previous species and is found for sheep, but in a small proportion (only 9 countries). Increases occurred, in 2007, in Latvia (30.5%), Estonia (27.2%), and Luxembourg (18.3%). Romania recorded a growth of 10.3%. Beside our country, other countries, where there were increases in the number of sheep, have a low share in European herds. Overall EU-27 growth was 0.6%.

In **goat growing** situation is somewhat similar to that in sheep. The largest upward is Greece, followed by Spain, Romania being at the place 5. Goats are concentrated mainly in three countries - Greece, Spain and France, which together account for 68.1% from the existing EU-27. In EU agriculture, goat is the least developed.

Regarding **poultry**, statistics show table laying hens and chickens (for meat). Data from 2007 reveals that all 27 EU countries growing hens and chicks.

There are natural differences between countries in the EU-27. As a result, there are large countries increasing laying hens - Germany, Italy, Spain, and France, followed by Romania, United Kingdom, Poland and the Netherlands. The situation is similar to chicken, only the first is the United Kingdom, followed by France, Spain, Germany and Italy. Romania has a weaker position than in chickens. Our potential grain would actually require a higher position. Currently it is 5-8 times lower than the numbers held, if applicable, of Germany, Spain, France and the UK. The gap seems too large, if we consider that Romania is, by area, the sixth grain growing country.

CONCLUSIONS

The main conclusion is that there are important differences in the structure of production between Romania and other EU countries. The reasons supporting this conclusion are different from natural conditions specific to each country, to the socio-economic (level of development of each country), political (in terms of supporting the development of certain branches), cultural (consumption habits), etc. Here are some possible causes and explanations of these differences.

1. There are a variety of production structures in the EU, less by the type of branches and more in the degree of extension of each of them.

2. Natural conditions have an important role, leading, of course, to differences between the structures of production of agriculture in EU countries.

3. Romania discrepancies are found in the reduced share of branches that have roles in the diversification of agricultural production and economic performance - fruit growing, viticulture, vegetable growing. They provide higher values of yield.

4. In animal husbandry, herds, by species, are lower than those of countries that have utilized agricultural area near the size held by Romania, but also to those of other countries where this is less than in our country.

5. In Romania, animal products are obtained extensive and can compete at holding the title of organic products, because, for providing forage base for livestock, natural pastures and hay fields are used. Romania grown to feed only 1.3% of agricultural area used, given that the EU27 average is 3.9%.

6. Romania maintains a system of extensive livestock mainly because the density of animals in 100 hectares of land used is 20 head, below the European average of 48.1 heads.

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